

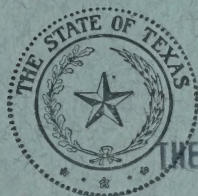
T31TH
1928/29 Open.

BULLETIN
OF THE
TEXAS TECHNOLOGICAL
COLLEGE
LUBBOCK, TEXAS
PUBLISHED FOUR TIMES A YEAR

VOL. IV

OCTOBER, 1928

NO. 4



THE LIBRARY OF THE

APR 19 1929

UNIVERSITY OF ILLINOIS

The Opening of the Fourth Year

STUDENTS ENROLLED AT OPENING, 1,760

(FOR COMPLETE CATALOGUE ADDRESS THE REGISTRAR)

Winter Term Opens January 2, 1929

NEW STUDENTS ADMITTED THEN

INSCRIPTIONS ON ADMINISTRATION BUILDING, TEXAS TECHNOLOGICAL COLLEGE

NORTH SIDE

To right of main entrance: "Cultivated mind is the guardian genius of democracy. It is the only dictator that freemen acknowledge, the only security that freemen desire."—*Mirabeau B. Lamar.*

To left of main entrance: "Righteousness exalteth a nation, but sin is a reproach to any people."—*Solomon.*

Above third story windows, east end of building, the faces of five outstanding men in American history; namely, Columbus, Washington, Lincoln, Lee, Wilson.

Above third story windows, west end of building, the faces of five outstanding men in Texas history; namely, Houston, Austin, Crockett, Johnston, Hogg.

The great seal of the College.

The great seals of the six nations under the flags of which Texas has been; namely, France, Spain, Mexico, The Republic of Texas, The Confederacy, The United States of America.

The four great institutions of society: Home, State, Church, School.

Seven subjects that the Texas Technological College is designed to teach; namely, Agriculture, Science, Manufacturing, Democracy, Home Making, Art, Literature.

Seven educational products which the Texas Technological College is specifically designed to bring forth; namely, Patriotism, Religion, Industry, Virtue, Wealth, Enlightenment, Citizenship.

SOUTH SIDE

The names of fifteen people, above the archway, showing those lines of human endeavor considered most worth while:

For philosophy, Plato and Aristotle.

For poetry, Homer and Shakespeare.

For medicine, Hippocrates.

For divinity, Paul.

For architecture, Michael Angelo.

For teaching, Pestalozzi.

For statecraft, Gladstone.

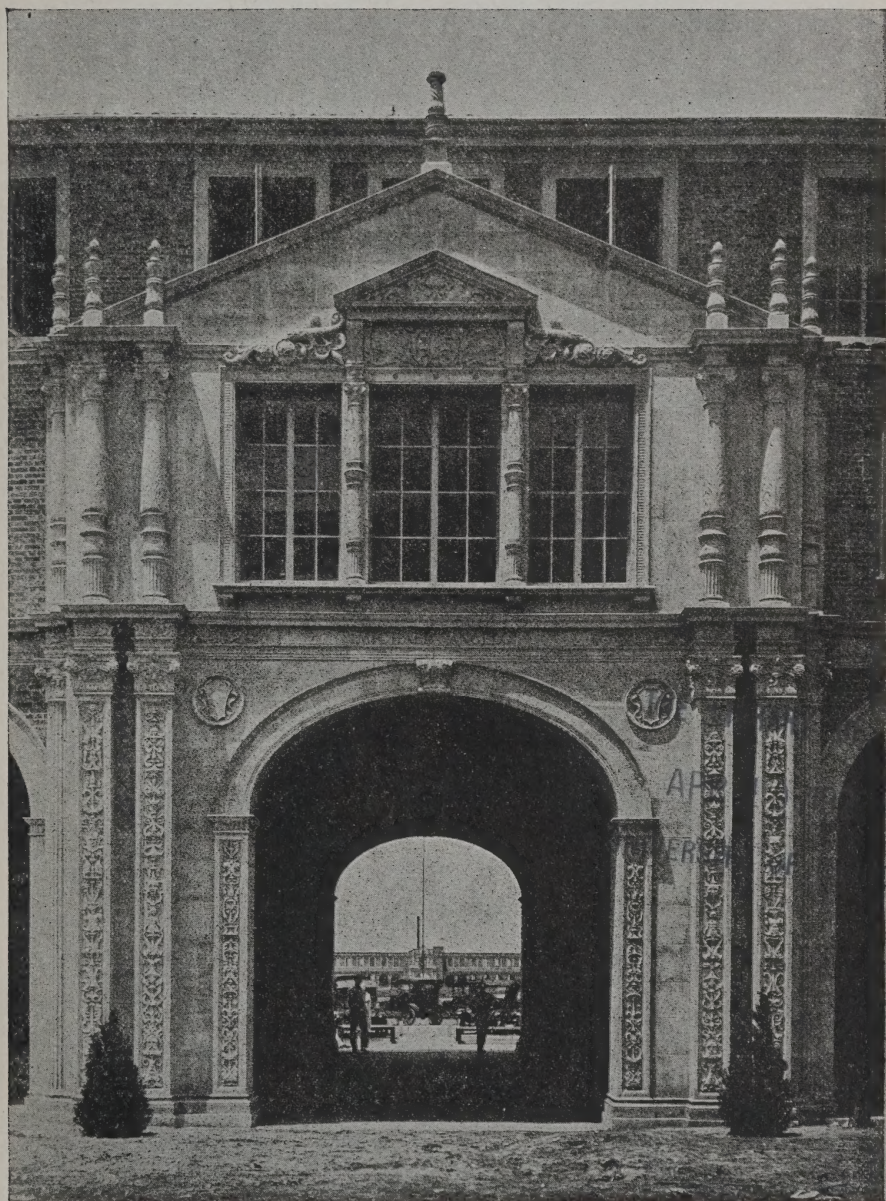
For pure science, Newton.

For applied science, Pasteur.

For common sense, Franklin.

For invention, Edison.

For science in the vegetable world, Burbank.



South View of Sally Port. Administration Building,
with Textile Building in the Distance

BULLETIN
OF THE
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PRESIDENT'S OFFICE
UNIVERSITY OF ILLINOIS

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The Opening of the Fourth Year

STUDENTS ENROLLED AT OPENING, 1,760

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C-52-L180-928-5M

FOREWORD

The Texas Technological College opened its doors in September, 1928, for its fourth year with enrollment greatly in excess of that of the same time during the preceding year.

To help take care of this greatly increased attendance, there are two new buildings on the campus.

One is the new Engineering Building, which is now completed and ready for occupancy.

The other is the new Science Building, which is well under way and will be ready for occupancy by January 1, 1929.

The total enrollment of students of college grade during the regular session of nine months for the first three years of the existence of the college has been as follows:

1925-26	1,043
1926-27	1,535
1927-28	1,682

If the same percentage of increase holds good during the entire session that obtains at the opening dates, the registration for the fourth year will be not far below 2,500.

During the year 1927-28, the summer school had an attendance of 965 students. The total attendance for the regular session and summer school, excluding duplicates, was 2,214 students. It is doubtful if any other institution of learning in the entire United States ever reached so large a size in so short a time. It is certain that the enrollment has more than justified the faith of the people and the action of the legislature in establishing the institution.

The supply of catalogs issued in January, 1928, has been exhausted. This October Bulletin is intended to take the place of a catalog issued in very condensed form. The bulletin of January, 1929, will give a much fuller statement of courses. It will also contain a complete analysis of the enrollment of the institution up to that date.

COLLEGE CALENDAR

FOURTH ANNUAL SESSION

1928

October 23, Tuesday. Last day for registration for fall term work.
November 11, Sunday. Armistice Day. Monday, November 12, a holiday.
November 13, Tuesday. Mid-term reports due in Registrar's office.
November 29, Thursday. Thanksgiving Day, a holiday.
December 17-21, Monday-Friday. Fall term examinations.
December 22, Saturday. Christmas recess begins.
December 22, Saturday. Fall term grades due in Registrar's office.

1929

January 2, Wednesday. Registration for winter term.
January 3, Thursday. Recitations begin 8 a. m.
January 9, Wednesday. Last day for winter term registration for full work.
February 9, Saturday. Mid-term reports due in Registrar's office.
February 22, Friday. Washington's birthday, a holiday.
March 12-16, Tuesday-Saturday. Winter term examinations.
March 16, Saturday. Winter term closes.
March 18, Monday. Winter term reports due in Registrar's office.
March 18, Monday. Registration for Spring term.
March 19, Tuesday. Recitations begin 8 a. m.
April 21, Sunday. San Jacinto Day.
April 24, Wednesday. Mid-term reports due in Registrar's office.
May, 26, Sunday. Commencement Sunday.
May 27-31, Monday-Friday. Spring term examinations.
May 27, Monday. Commencement Day.
June 1, Saturday. Spring term reports due in Registrar's office.
June 3, Monday. Summer School begins.
August 23, Friday. Summer School closes.

BOARD OF DIRECTORS

OFFICERS OF THE BOARD

CLIFFORD B. JONES, Chairman-----Spur
R. A. UNDERWOOD, Vice-Chairman-----Plainview
H. T. KIMBRO, Treasurer-----Lubbock
E. W. PROVENCE, Secretary-----Lubbock

MEMBERS OF THE BOARD

Term Expires 1929

FRANK E. CLARITY-----Fort Worth
MRS. F. N. DRANE-----Corsicana
JOHN W. CARPENTER-----Dallas

Term Expires 1931

CLIFFORD B. JONES-----Spur
H. T. KIMBRO,-----Lubbock
HOUSTON HARTE-----San Angelo

Term Expires 1933

R. A. UNDERWOOD-----Plainview
E. O. THOMPSON-----Amarillo
C. G. COMEGYS-----McKinney

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JOHN W. CARPENTER MRS. F. N. DRANE

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C. G. COMEGYS, *Chairman*

HOUSTON HARTE FRANK E. CLARITY

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FINANCE COMMITTEE

JOHN W. CARPENTER, *Chairman*

HOUSTON HARTE FRANK E. CLARITY

LEGISLATIVE COMMITTEE

E. O. THOMPSON, *Chairman*

C. G. COMEGYS H. T. KIMBRO

OFFICERS OF ADMINISTRATION

PAUL W. HORN, M. A., LL. D., *President.*

Office, 213 Administration Building.

JAMES M. GORDON, M. A., LL. D., *Dean of the School of Liberal Arts.*

Office, 211 Administration Building.

ARTHUR H. LEIDIGH, M. S., *Dean of the School of Agriculture.*

Office, 102 Agriculture Building.

WILLIAM J. MILLER, S. M. IN E. E., *Dean of the School of Engineering.*

Office, Engineering Building.

MARGARET W. WEEKS, M. S., *Dean of the School of Home Economics.*

Office, 101 Home Economics Building.

MARY W. DOAK, B. A., *Dean of Women.*

Office, 102 Administration Building.

ERNEST W. PROVENCE, B. A., *Secretary and Business Manager.*

Office, 105 Administration Building.

EBEN L. DOHONEY, B. LITT., *Registrar and Assistant Dean.*

Office, 210 Administration Building.

OFFICERS OF INSTRUCTION

PAUL WHITFIELD HORN, *President.*

M. A., Central College; LL. D., 1917.

EDMOND WEYMAN CAMP, *Professor of Textile Engineering; Head of Department.*

B. S. in T. E., Georgia School of Technology, 1901.

MARY WOODWARD DOAK, *Dean of Women and Professor of English.*

B. A., Texas, 1925.

CHARLES DUDLEY EAVES, *Professor of History.*

B. A., Texas, 1916; M. A., Chicago, 1922.

MABEL DEANE ERWIN, *Professor and Head of Clothing Department.*

B. S., Purdue, 1913; M. A., Columbia, 1923.

ARTHUR WILSON EVANS, *Professor of Education; Head of Department.*

B. A., Oxford College, 1890; M. A., Texas, 1924, Ph. D., Texas, 1928.

GUS L. FORD, *Professor of History.*

B. A., Southern Methodist University, 1920; M. A., 1921.

EWING YOUNG FREELAND, *Director of Physical Education; Head Coach.*

B. A., Vanderbilt, 1912.

ENOCH FRANKLIN GEORGE, *Professor of Physics; Head of Department.*

B. A., West Virginia, 1914; M. A., 1916; Ph. D., Ohio State, 1920.

JAMES MARCUS GORDON, *Dean of Liberal Arts and Professor of Latin.*

B. A., Trinity, 1903; M. A., Chicago, 1908; LL. D., Trinity, 1919.

JOHN COWPER GRANBERY, *Professor of History; Head of Department.*

B. A., Randolph-Macon, 1896; M. A., Chicago, 1908; Ph. D., 1909.

WILLIAM ALBERT JACKSON, *Professor of Government; Head of Department.*

B. A., Baylor, 1914; M. A., Chicago, 1916; Ph. D., Iowa, 1924.

ARTHUR HENRY LEIDIGH, *Dean of Agriculture and Professor of Agronomy.*

B. S., Kansas State Agricultural College, 1902; M. S., Texas A. & M., 1923.

JOHNNIE HEMPHILL MCCRERY, *Professor and Head of Foods Department.*

B. S., Columbia, 1920; M. A., 1923.

CLARENCE SIMPSON MAST, *Professor of Physics.*

B. S., Ohio Wesleyan, 1906; M. A., 1911.

JAMES NEWTON MICHIE, *Professor of Mathematics; Head of Department.*

B. S. in Engineering, Virginia, 1908; M. A., Michigan, 1919.

WILLIAM JASPER MILLER, *Dean of Engineering and Professor of Electrical Engineering.*

E. E., Texas, 1915; S. M., in E. E., Massachusetts Institute of Technology, 1922.

JAMES HAROLD MURDOUGH, *Professor of Civil Engineering; Head of Department.*

S. B. in C. E., Massachusetts Institute of Technology, 1916.

LEROY THOMPSON PATTON, *Professor of Geology; Head of Department.*

B. A., Muskingum College, 1905; B. S., Chicago, 1913; M. S., Iowa, 1916; Ph. D., Iowa, 1923.

RUTH PIRTLE, *Professor of Public Speaking; Head of Department.*

Student, Hickman School of Speech Arts; Lyceum Arts Conservatory; Colorado; California; Curry School of Expression, Boston; B. A., Columbia, 1928.

*CHARLES BLAISE QUALIA, *Professor of Spanish; Head of Department.*

B. A., Texas, 1916; M. A., 1921.

W. L. RAY, *Professor of Chemistry.*

E. A., Texas, 1918; M. A., 1920; Ph. D., Chicago, 1923.

WILLIAM THORNTON READ, *Professor of Chemistry; Head of Department.*

B. A., Austin College, 1905; M. A., 1908; M. S., Texas, 1915; Ph. D., Yale, 1921.

*Leave of Absence. 1928-1929.

GEORGE SMALLWOOD, *Professor of English.*

B. A., Southwestern, 1917; M. A., Southern Methodist University, 1925.

WENZEL LOUIS STANGEL, *Professor of Animal Husbandry; Head of Department.*

B. S., Texas A. and M., 1915; M. S., Missouri, 1916.

RICHARD ARTHUR STUDHALTER, *Professor of Biology; Head of Department.*

B. A., Texas, 1912; M. A., Washington University, 1917.

MARGARET WATSON WEEKS, *Dean of Home Economics and Professor of Nutrition.*

B. S., Columbia, 1921; M. S., 1925.

WILLIAM RICHARD WAGHORNE, *Professor of Music; Head of Department.*

A. A. G. O., New York, 1914; F. A. G. O., 1915.

WILLIAM HENRY ABBITT, *Professor of Physics.*

B. A., Virginia, 1919; Ph. D., Chicago, 1926.

BENJAMIN F. CONDRAY, *Professor of Economics and Business Administration.*

B. A., Ouachita, 1921; M. A., Chicago, 1923.

WILLIAM MOORE CRAIG, *Professor of Chemistry.*

B. A., Southwestern, 1906; M. A., 1907; M. A., Texas, 1916; Ph. D., Harvard, 1927.

RUFUS ARTHUR MILLS, *Professor of English.*

B. A., Texas, 1914; M. A., 1923.

CARL LARS SVENSEN, *Professor of Engineering Drawing; Head of Department.*

B. S., Tufts College, 1907; M. E., 1921.

THOR J. BECK, *Professor of French and German; Head of Department.*

B. A., Soree College; M. A., LL. M.; LL. D., Copenhagen.

ALLAN L. CARTER, *Professor of English; Head of Department.*

B. A., Clark, 1911; M. A., Northwestern, 1913; Ph. D., Pennsylvania, 1919.

R. E. GARLIN, *Professor of Education.*

B. A., Texas, 1920; M. A., 1921; Ph. D., 1927.

ANNAH JO PENDLETON, *Professor of Public Speaking.*

B. A., Texas Christian University, 1918; Graduate School of Speech Arts, Northwestern University, 1921; Iowa, 1927.

CHARLES HAROLD MAHONEY, *Professor of Horticulture; Head of Department.*

B. S., Arizona, 1923; M. S., Texas; A. & M., 1925.

SETH SHEPARD MCKAY, *Professor of History.*

B. A., Texas, 1912; M. A., 1919; Ph. D., Pennsylvania, 1924.

JOHN ORVAL ELLSWORTH, *Professor of Agricultural Economics and Farm Management; Head of Department.*

B. S., Utah A. & M.; M. S., Cornell; Ph. D., Cornell.

FRED WENCHELL SPARKS, *Professor of Mathematics.*

B. A., Southwestern, 1920; M. A., 1922; M. S., Chicago, 1923.

S. A. KLEINSCHMIDT, *Professor of Architectural Engineering.*
B. S., University of Minnesota; M. S., Harvard; Diplome d'Architecture, Fontaine Bleu.

ASSOCIATE PROFESSORS

*LALLA ROOKH BOONE, *Associate Professor of History.*
B. A., Texas, 1917; M. A., California, 1922.

WILLIAM BRYAN GATES, *Associate Professor of English.*
B. S., Millsaps College, 1918; M. A., Vanderbilt, 1921; M. A., Michigan, 1927.

FLORA POWELL MCGEE, *Associate Professor of English.*
B. A., Colorado College; M. A., George Peabody College, 1924.

EDGAR GREER SHELTON, *Associate Professor of Architectural Engineering.*
B. S. in Architecture, Texas, 1921.

FRANCES WHATLEY, *Associate Professor of Spanish.*
B. A., Texas, 1920; M. A., 1925.

HARRY HILL, *Associate Professor of Physics.*
B. A., West Virginia, 1922; M. A., 1924.

WARREN PERRY CLEMENT, *Associate Professor of Education.*
B. A., Baylor, 1919; M. A., 1920.

RUPERT WINTHROP FOWLER, *Associate Professor of English.*
B. A., Texas, 1908; M. A., Harvard, 1920.

BESSIE BEAKLEY LEAGUE, *Associate Professor of Biology.*
B. A., Texas, 1921; M. A., 1925.

HARDISTON C. PENDER, *Associate Professor of Government.*
B. A., North Texas State Teachers College, 1921; M. A., Baylor, 1926.

RAY C. MOWERY, *Associate Professor of Animal Husbandry.*
B. S., Texas A. and M., 1921; M. S., Iowa State College, 1926.

EDWARD LOOMAN REED, *Associate Professor of Botany.*
B. A., Oklahoma Baptist College, 1912; M. S., Chicago, 1922; Ph. D., 1924.

DOROTHY MCFARLANE, *Associate Professor of Foods.*
B. S., Columbia, 1915; M. A., 1919.

*ADELIN WHITE SCOTT, *Associate Professor of Education.*
B. S., Peabody, 1918; M. A., Columbia, 1921.

WILLIAM MORRIS YOUNG, *Associate Professor of Electrical Engineering.*
B. S. in E. E., Illinois, 1921; M. S. in E. E., 1922; Ph. D., 1926.

WILLIAM A. WHATLEY, *Associate Professor of Spanish.*
B. S., Texas, 1920; M. A., 1921.

GEORGE LEWIS TUVE, *Associate Professor of Mechanical Engineering.*
B. S. in M. E., Minn., 1920; M. E., 1921.

OTTO V. ADAMS, *Associate Professor of Civil Engineering.*
B. S. in C. E., Colorado Agricultural College, 1918; M. S. E., Michigan, 1924.

*Leave of Absence. 1928-1929.

HARLEY JAMES BOWER, *Associate Professor of Agronomy; Head of Department.*

B. S., Kansas State Agricultural College; M. S., Ohio State, 1912.

MARIE DELLENENY, *Associate Professor of Art; Head of Department.*

B. A., College of Industrial Arts; M. A., Columbia, 1927.

M. F. LANDWER, *Associate Professor of Biology.*

B. A., Northwestern; M. A., Nebraska.

HAROLD R. NISSLEY, *Associate Professor of Economics and Business Administration.*

B. S. in E. E., Armour Institute, 1926; Ph. B., Chicago, 1927.

KENNETH MILLER RENNER, *Associate Professor of Dairy Products and Manufactures; Head of Department.*

B. S., Iowa State College, 1921; M. S., Kansas A. and M., 1927.

F. Y. ROBNETT, *Associate Professor of English.*

B. A., Baylor, 1921; M. A., 1922.

C. C. SCHMIDT, *Associate Professor of Physics.*

B. A., Cornell, 1917; M. A., Illinois, 1921; Ph. D., Illinois, 1927.

J. T. SHAVER, *Associate Professor of Education.*

B. S., S. H. S. T. C., 1926; M. A., Columbia, 1927.

M. A. STAINBROOK, *Associate Professor of Geology.*

B. A., 1921; M. S., 1922; Ph. D., Iowa, 1927.

R. S. UNDERWOOD, *Associate Professor of Mathematics.*

B. A., Minnesota, 1916; M. A., 1917.

C. E. RUSSELL, *Associate Professor of Horticulture.*

B. S., Michigan State College; M. S., Oregon Agricultural College.

BONNIE K. DYSART, *Associate Professor of Education.*

M. A., Texas, 1926.

RAYMOND SIDWELL, *Associate Professor of Geology.*

B. A., 1921; M. S., 1922; Ph. D., Iowa, 1928.

ERNEST NELSON, *Associate Professor, Textile Engineering.*

Long Textile Institute; New Bedford, 1911.

W. I. ROBINSON, *Associate Professor of Geology.*

M. S., University of Michigan, 1914; Ph. D., Yale, 1916.

OTHER OFFICERS OF INSTRUCTION

JAMES G. ALLEN, *Instructor in English.*

M. A., Harvard, 1927.

*JOHNNYE GILKERSON, *Instructor in Physical Education for Women.*

B. A., Texas, 1924.

GRAILY HEWITT HIGGINBOTHAM, *Coach.*

LIEUTENANT HUGH EDWARD KILLIN, *Instructor in Military Science.*

*ELIZABETH THATCHER STAFFORD, *Adjunct Professor of Mathematics.*

Ph. B., Brown University, 1923; M. S., 1924.

LUCILLE AVO POWELL GILL, *Instructor in English.*

B. A., Texas, 1922; M. A., 1925.

J. COYNE HARDGRAVE, *Instructor in Engineering Shopwork.*

KATHERINE HARPER, *Director of the Cafeteria and Adjunct Professor of Foods.*

B. S., College of Industrial Arts, 1918; M. A., Columbia, 1926.

CARL HENNINGER, *Assistant Professor of Spanish.*

B. A., Indiana, 1907; M. A., Illinois, 1908.

CECIL HORNE, *Adjunct Professor of English and Journalism and Head of Department of Information.*

B. A., Baylor, 1908; B. A., Yale, 1911.

CAPTAIN RHODES INGERTON, *Instructor in Physical Education and Military Training.*

KENNETH LESLIE KNICKERBOCKER, *Instructor in English.*

B. A., Southern Methodist University, 1925; M. A., 1927.

HARRY LEMAIRE, *Instructor in Music; Bandmaster.*

Kneller Hall, 1882; F. R. A. Royal Academy of Music, London, England, 1883.

MRS. J. M. MARSHALL, *Instructor in Chemistry.*

B. A., Texas, 1909.

*J. WELBORN MCKAY, *Instructor in Biology.*

B. A., M. A., Texas, 1927.

DONALD VAN DALE MURPHY, *Adjunct Professor of English.*

B. A., Tulsa, 1920; M. A., Columbia, 1926.

MRS. ROXIE CLARKE READ, *Instructor in Chemistry.*

A. B., Hendrix College, 1909; M. A., Texas, 1918.

*LIMMYE VERNON ROBINSON, *Adjunct Professor of Mathematics.*

B. A., Texas, 1921; M. A., 1922.

GUSSIE LEE TEAGUE, *Instructor in English.*

B. A., Oklahoma, 1923; M. A., Colorado, 1926.

FRANCIS EDWIN BALLARD, *Instructor in Government.*

M. A., Vanderbilt, 1926.

A. T. BISHOP, *Adjunct Professor of Mathematics.*

Graduate, West Point, 1905; M. A., Virginia, 1926.

MRS. EDNA WALKER BUSTER, *Instructor in Clothing and Textiles.*

B. S., College of Industrial Arts, 1924.

EUNICE COX, *Instructor in Public Speaking.*

ton; Graduate work, Chicago; Oklahoma.

- M. E. FARRIS, *Assistant Professor of Mechanical Engineering.*
B. S. in M. E., Purdue, 1922; M. S. in M. E., Texas, 1926.
- EUNICE J. GATES, *Instructor in Spanish.*
B. A., Southwestern, 1921; M. A., 1924; M. A., Michigan, 1927.
- FRED G. HARBAUGH, *Assistant Professor of Animal Husbandry.*
B. S., Iowa State College, 1927; D. V. M., 1927.
- VICTOR D. PAYNE, *Assistant Professor in Physical Education for Men.*
B. A., Simmons University.
- ALAN LANG STROUT, *Assistant Professor of English.*
M. A., University of Chicago, 1920; M. A., University of Wisconsin, 1925; Ph. D., Yale, 1928.
- F. L. MCREE, *Instructor in Civil Engineering.*
B. S. in C. E., Texas, 1925.
- O. C. CORRY, *Assistant Professor of Business Administration.*
M. A., Texas.
- H. B. CARROLL, *Instructor in History.*
B. A., Texas Tech., 1928; M. A., Texas Tech., 1928.
- L. C. CHRISTIANSON, *Instructor in Mathematics.*
M. A., Missouri, 1928.
- MRS. WILLIAM DINGUS, *Graduate Assistant in Latin.*
B. A., Texas.
- CHARLES C. GALBRAITH, *Teaching Assistant in Chemistry.*
B. S., Trinity, 1928.
- ELLIS R. HEINEMAN, *Instructor in Mathematics.*
B. A., Wisconsin; M. A., Wisconsin, 1926.
- MAURICE EARL HEARD, *Instructor in Dyeing.*
Georgia Tech.
- VIVIAN JOHNSON, *Instructor in Foods and Home Economics Education.*
B. S., College of Industrial Arts; M. A., Columbia, 1927. *
- WAYNE E. LONG, *Instructor in Mechanical Engineering.*
B. S. in M. E., Texas A. & M., 1927.
- LONNI LANGSTON, *Instructor in Mathematics.*
M. A., South Carolina, 1928.
- EMILIE MADONNE, *Adjunct Professor of French.*
B. A. Ouachita, 1923; M. A., Baylor, 1925.
- JOSEPH S. ROSEN, *Instructor in Mathematics.*
M. S., Washington University, 1926.
- ZELLA E. RIEGEL, *Instructor in Physical Education for Women.*
B. A., Central College, 1925.
- ALBERT B. STREHLI, *Assistant Professor of Spanish.*
B. A., 1924; M. A., 1926, Ohio State University.
- W. M. SLAGLE, *Assistant Professor in Chemistry.*
B. A., Texas, 1909.
- JESSIE Q. SEALEY, *Instructor in Biology.*
M. A., Texas.

WILLIAM E. STREET, *Student Instructor.*

MRS. RUTH STUDHALTER, *Instructor in Biology.*

M. A., Washington University.

EARL L. THOMPSON, *Assistant Professor of Mathematics.*

B. A., Kansas State Teachers College, 1908; M. A., Kansas, 1914; Ph. D., Chicago, 1928.

S. J. BOLLER, *Assistant Professor of Engineering Drawing.*

B. S., Iowa; M. S.,

W. F. HELWIG, *Assistant Professor of Electrical Engineering.*

B. S. in E. E., Minnesota; M. S. in E. E., Texas.

INSTRUCTORS IN SPECIAL DEPARTMENTS

MARGARET JOHNSON HUFF, *Piano.*

B. Mus., American Conservatory.

MRS. VIOLET GRAYUM MCKNIGHT, *Voice.*

B. M., Baylor; Pupil of Herbert Witherspoon, Chicago Musical College; E. Warren K. Howe, American Conservatory; Fred Eggert; Maude Baird.

MRS. M. A. SCOGGIN, *Voice.*

Graduate of College of Music, Ottawa University.

ANNAH JO PENDLETON, *Expression.*

M. A., Iowa.

EUNICE COX, *Expression.*

B. S., Texas Womans College.

HARRY LEMAIRE, *Band.*

MRS. DOROTHY McDONALD KNICKERBOCKER, *Instructor in Violin.*

Brenau Conservatory, 1926; Pupil of Eithel Allen Nelson, and E. B. Michaelis.

JULIUS F. McDONALD, *Director of Extension Department.*

B. A., Baylor, 1897; B. A., Yale, 1898; M. A., Chicago, 1910.

MRS. E. F. GEORGE, *Piano.*

B. M., Cincinnati.

LIBRARY STAFF

ELIZABETH HOWARD WEST, *Librarian.*

B. A., Texas; M. A., 1901; Texas Library Training Class, 1905-6.

EMMA LILLIAN MAIN, *Assistant Librarian.*

B. A., North Texas State Teachers College, 1924; Texas Library School, 1925-26.

*MADELIN FRANCES CANOVA, *Reference Librarian.*

RUTH BUDD, *Reference Librarian.*

MRS. R. M. CHITWOOD, *Assistant to the Dean of Women.*

ROY W. McCULLOUGH, *Y. M. C. A. Secretary.*

B. A., Cornell (Iowa), 1917; B. D., Yale University, 1924.

J. H. GRIMSLEY, *Superintendent of Buildings and Grounds.*

H. M. BELL, *B. S., Superintendent of Farms.*

*Leave of Absence. 1928-1929.

FACULTY COMMITTEES

(The President is ex-officio a member of all committees).

1. Daily schedule: Deans Gordon, Leidigh, Miller, Weeks.
2. Registration: Dohoney, Murdough, Gates.
3. Boarding houses: Mast, Ray, Horne.
4. Formal exercises: Abbitt, Waghorne, Carter.
5. Student help: Horne, Dohoney, Condray.
6. Entrance examinations: Clement, Hill, Eaves.
7. Extra-curricular activities: Granbery, West, Michie.
8. Social activities: Doak, Weeks, Ford, Parker.
9. Student publications: Mills, McGee, Horne.
10. Scholarship awards: Evans, Studhalter, Camp.
11. Religious life among students: Read, Eaves, George.
12. Publicity: Horne, Fowler, Gates.
13. General catalog: Five deans, including dean of women.
14. Course of study, Liberal Arts: Dean Gordon and department heads.
15. Faculty advisors: Evans, George, McCrery.
16. Artists' course: Waghorne, Robnett, Craig.
17. Summer school: Gordon, Evans, Granbery.
18. Degrees and advanced standing in Liberal Arts: Gordon, Jackson, Read.
19. Public speaking: Mills, West, Granbery.
20. Discipline (men): Gordon, Leidigh, Adams.
21. Discipline (women): Doak, Weeks, Pirtle.
22. Athletic Council: Stangel, Jackson, Dohoney, Freeland, Provence, Carroll.

SCHEDULE OF ENTRANCE EXAMINATIONS

WINTER TERM, 1928-9

Tuesday, December 11, 1928

Forenoon		Afternoon	
8:00-10:00	10:00-12:00	1:00-3:00	3:00-5:00
English 1 and Biology	Economics Botany Am. History	Algebra I Eng. History Old Testament	Algebra II Sociology New Testament

Wednesday, December 12

Forenoon		Afternoon	
8:00-10:00	10:00-12:00	1:00-3:00	3:00-5:00
English III Typewriting Manual Training	English IV Stenography German	Zoology Com. Geography Drawing	Physiology Com. Law

Thursday, December 13

Forenoon		Afternoon	
8:00-10:00	10:00-12:00	1:00-3:00	3:00-5:00
Plane Geometry Solid Geometry Trigonometry	Ancient History Modern History Latin	French Spanish Pub. Speaking	Domestic Art Domestic Science Agriculture

Friday, December 14

Forenoon		Afternoon
8:00-10:00	10:00-12:00	1:00-3:00
Advanced Arith. Gen. Science	Physics Chemistry Physiography	Civics Bookkeeping

The requirements of the State Department of Education hold concerning the submitting of notebooks. Notebooks are required for the following subjects Biology, Botany, Zoology, Physiology, Chemistry, Physics, General Science, Physiography, Commercial Geography and Agriculture.

TEXAS TECHNOLOGICAL COLLEGE

A co-educational institution, tax supported, established by Act of the Thirty-eighth Legislature of Texas.

It first opened its doors for students in October, 1925.

Located at Lubbock, Texas. Elevation 3,250 feet. Climate unsurpassed for health and comfort.

Site 2,008 acres, of which the campus comprises 320 acres.

Standard entrance requirements. Students who are graduates of affiliated high schools with not fewer than fifteen units of recognized credit may be admitted without further examination. Others are admitted upon examination on the fifteen units required.

Students twenty-one years old or over may be admitted upon individual approval by the dean.

No work of sub-collegiate grade is offered.

CONDENSED SIGNIFICANT FACTS

1. **Buildings**—14 large, modern buildings, architecturally pleasing and adequately arranged for efficient instruction.
2. **Equipment**—excellent laboratory facilities for chemistry, physics, biology, agriculture, geology, engineering and home economics. All equipment is new and up-to-date.
3. **Faculty**—127 members, all of whom have received degrees at leading colleges and universities in America.
4. **Diversified Interests**—The college is organized into four distinct but closely co-operating schools.
 - (a) **School of Liberal Arts**—affords opportunity for students who desire a liberal education in the sciences and humanities as well as business administration, law and medicine.
 - (b) **School of Engineering**—gives the essential basic training in engineering work, including architectural, civil, electrical, geological, mechanical, chemical and textile.
 - (c) **School of Agriculture**—puts emphasis on the laboratory method of instruction in agricultural economics, farm management, agronomy, animal husbandry, horticulture, genetics, dairy products and manufactures.
 - (d) **School of Home Economics**—not only furnishes young women with the practical knowledge and scientific training necessary to the homemaker of today, but trains them in clothing and design, foods, nutrition, general home economics, and teacher training in home economics.
5. **Courses**—250 courses in history, biology, art, economics, business administration, education and psychology, chemistry, English, French, government, geology, mathematics,

philosophy and sociology, music, physics, physical education, Spanish, German, public speaking and expression, home economics, engineering, and agriculture. 100 courses are advanced.

6. **Rating**—a fully accredited senior college. B. S. and B. A. degree graduates may enter the leading universities with full graduate standing.
7. **Graduate Students**—the M. A. degree may be secured in the following departments: biology, economics and business administration, education and psychology, English, geology, government, history, mathematics, philosophy and sociology.
8. **Athletics**—extensive athletic field which provides ample facilities for all outdoor games. Large gymnasium; excellent tennis courts.
9. **Military Training** (optional)—two years of basic military training.
10. **Co-educational**—young men and young women are admitted on an equal basis.

COLLEGE EXPENSES

The Texas Technological College, being a State institution, has no tuition fees. The enrollment and other incidental fees, due and payable in advance, are \$10.00 per term. This includes the library fee and artists' course. There is a medical service charge of \$1.50 per quarter.

Student activity fee (not compulsory), \$10.00 a year. Payment of this admits a student to all the games, debates and other activities of the college.

In addition to the above, laboratory fees are charged for all courses where the laboratory work is a part of the course. In no case does one of these fees exceed \$4.00 per year.

All students taking laboratory courses are also required to make a deposit to cover loss from breakage. This fee is returnable at the end of the quarter, provided there has been no breakage charged against it.

There is also a library deposit fee of \$5.00 for the year. This is returnable whenever the student withdraws from school less any amount charged against the student for fines or for loss of books. The student body hopes that many of the students will at the end of the year assign the unused part of this deposit as part payment on the college annual. This, however, is optional with the student.

Any former student who enrolls after the final date set for registration will be charged a late enrollment fee of \$2.00. A

student who changes his course after registration, or who changes from one section of a course to another is charged a fee of \$1.00, unless such change is made on petition approved by the chairman of the department concerned and the dean of the college.

All fees are due and payable at the beginning of each term. They are to be paid to the college secretary, who is also the business manager. Fees are payable at Room 104, Administration Building, and before the student's class card is sent to the instructor.

FEEES FOR SPECIAL COURSES

A special fee is charged all students taking individual work in expression, vocal music, piano or violin. There is no extra charge for the numbered courses in music and public speaking, which are given as regular college courses. For individual work the charges are as follows:

Voice, Mrs. Violet McKnight, 2 lessons per week, per term.....	30.00
Piano, Miss Huff, 2 lessons per week, and 1 class lesson in theory, per term	30.00
Violin, Mrs. Dorothy Knickerbocker, 2 lessons per week, per term....	30.00
Expression, Miss Cox, 2 lessons per week, per term.....	18.00
Piano, Mrs. E. F. George, 2 lessons per week, per term.....	30.00

ENTRANCE

The Registrar of the Texas Technological College has charge of all matters relating to admission to any school or schools of the College. All communications regarding entrance requirements should be addressed to him.

GENERAL ADMISSION REQUIREMENTS

Admission to the College is open to students of good moral character, both men and women, who can meet the entrance requirements and are able to profit by the work of the College. Applicants should bring with them a certificate of successful vaccination for smallpox or be vaccinated after coming to Lubbock. The College medical fee includes vaccination privilege.

SCHOLARSHIP REQUIREMENTS

Admission to any of the schools of the College requires fifteen high school units, among which number must be at least three units of English and two of mathematics. Specific requirements for a particular school may be found under the discussion for admission requirements for that school, e. g., engineering, agriculture, etc.

ADMISSION BY CERTIFICATE

Graduates of accredited high schools presenting a minimum of fifteen units will be admitted to the freshman class of the College without examination. For unconditional admission to a particular school of the College the required units for admission to that school must be included in the list of credits offered from the high school.

SUBJECTS AND UNITS ACCEPTED FOR ADMISSION

A unit implies nine months of high school study of five class periods a week at least forty minutes long, constituting approximately one-fourth of a year's work.

Prescribed

English, 3

Algebra, 1

Plane Geometry, 1

(For additional prescribed units, see entrance requirements for various schools or colleges.)

**Complete List*

Advanced Arithmetic, $\frac{1}{2}$	Latin, 2 to 4
Agriculture, $\frac{1}{2}$ to 1	Mechanical Drawing, $\frac{1}{2}$ to 4
Advertising, $\frac{1}{2}$	Modern History, 1
Ancient History, 1	Music, 1 to 4
Algebra, 1 or 2	Office Practice, $\frac{1}{2}$
American History, $\frac{1}{2}$ to 1	Physics, 1
Art, 1 to 4	Plane Geometry, 1
Botany, 1	Physiography, $\frac{1}{2}$
Bookkeeping, 1 to $1\frac{1}{2}$	Physiology and Hygiene, $\frac{1}{2}$ to 1
Biology, 1	Public Speaking, $\frac{1}{2}$ to 1
Bible, $\frac{1}{2}$ to 1	Psychology, $\frac{1}{2}$
Chemistry, 1	Retail Selling, $\frac{1}{2}$
Commercial Arithmetic, $\frac{1}{2}$	Salesmanship, $\frac{1}{2}$
Commercial Geography, $\frac{1}{2}$	Spanish, 2 to 4
Civics, $\frac{1}{2}$ to 1	Solid Geometry, $\frac{1}{2}$
Commercial Law, $\frac{1}{2}$	School Management, $\frac{1}{2}$
Design, $\frac{1}{2}$ to 1	Sociology, $\frac{1}{2}$
English, 2 to 4	Stenography and
Economics, $\frac{1}{2}$	Typewriting, 1 to 2
English History, $\frac{1}{2}$ to 1	Shop Work, $\frac{1}{2}$ to 4
French, 2 to 4	Trigonometry, $\frac{1}{2}$
German, 2 to 4	Typewriting, $\frac{1}{2}$
General Science, 1	Vocational Agriculture, 1 to 4
Home Economics, $\frac{1}{2}$ to 4	World History, 1
Hygiene and Home Nursing, $\frac{1}{2}$	Zoology, 1

*Not more than four units in vocational subjects may be used.

ADMISSION BY EXAMINATION

Students who have not been graduated from fully accredited high schools have the privilege of presenting themselves for entrance examinations, passing which they will be admitted to the freshman class.

In the spring each year entrance examinations are held throughout the State under the supervision of the State Department of Education. The examinations held in May are conducted in each county and the papers are graded by the State Department at Austin. Subjects successfully passed and certified to by the State Department will be accepted for entrance to the Texas Technological College provided they are subjects that meet our requirements.

At the opening of the fall term each year and at the beginning of the winter term, the College gives entrance examinations to those who need credits for entrance.

BY STATE TEACHER'S CERTIFICATE

Applicants holding a State teacher's certificate based on State examinations will receive credit in proportion to the number of acceptable subjects taken for the certificate.

Students holding teacher's certificates granted by the State Board of Education are requested to submit their reports from the State Board of Examiners and they will be given credit for affiliated subjects on which they have passed the State examinations.

BY INDIVIDUAL APPROVAL

At the discretion of the dean of the particular school, mature students (twenty-one years of age or over) may be admitted to College classes without having met the formal entrance requirements. Such admission does not confer special privileges, but, on the contrary, puts the applicant under special obligations. Each applicant proceeds as follows:

- (1) He must make application on the official blank (to be had of the dean), giving the information there desired.

- (2) He must furnish evidence that he has substantially covered the ground of the units required of other candidates, and that he has sufficient ability and seriousness of purpose to do the work desired with profit to himself and to the satisfaction of the College.

- (3) He must show, by the writing of a composition, that he has an adequate command of English.

Applicants are advised to send their applications and credentials in advance of their coming to Lubbock.

Admission by individual approval contemplates applicants who have not recently attended school and therefore could not pass the admission examinations.

Neglect of work or other evidence of lack of serious purpose on the part of a student thus admitted will cause the dean to withdraw approval, thus severing the student's connection with the College, and preventing his readmission until he has satisfied all admission requirements.

Students admitted by individual approval cannot become candidates for degrees until they have satisfied the admission requirements. As to how to remove admission conditions, see the following section.

Individual Approval Students.—Students admitted by individual approval to freshman English will, on completing that course, be given credit also for three admission units in English. Similarly, students admitted to freshman mathematics will, on completing that course, receive credit also for two admission units in algebra and one in plane geometry. Further, students admitted to the College by individual approval and making, during their first long session, at least five courses with an average grade of C will in addition absolve the admission condition in the five elective units. If this average is not made, the five elective units and the four other prescribed units must be made up in one or both of the methods given in the preceding paragraph.

ADMISSION WITH CONDITIONS

To enroll in the College a student must offer by examination or certificate fifteen high school units or their equivalent. Included in the fifteen must be three units of English and one each in plane geometry and algebra if the student enters without conditions. However, if he is able to present fifteen accredited units which do not include mathematics, he may be admitted to the freshman class, provided the conditions are all removed by examination or otherwise before he can be enrolled in any sophomore courses in the College. These conditions may be removed by work taken under the Department of Extension. The first course in any of the foreign language courses (131, 132, 133) may be used to absolve the two entrance units in this language, but of course it cannot at the same time earn college credits.

ADMISSION TO ADVANCED STANDING

Students transferring from other colleges of equal standing of the Texas Technological College will be given full credit for all courses taken in such colleges, provided such courses or their equivalent are given for credit at the Texas Technological Col-

lege. Whenever there is doubt about certain courses, the matter should be taken up with the dean of the school in which credit is desired.

REQUIREMENTS FOR GRADUATION

Specific requirements for graduation from the various schools will be found under this heading in the discussion given by the schools of this College.

In general, the completion of a certain number of required courses, together with certain elective courses with a definite sequence arrangement, constitutes graduation requirement.

The term "course" means the equivalent of three recitation hours per week throughout the full year of thirty-six weeks. In some instances the expression "credit hours" is used. A credit hour signifies the equivalent of one recitation hour per week for a term of twelve weeks. Nine credit hours equal one course.

Furthermore, students in any of the schools of the college who are found to be notably deficient in the fundamentals of English composition will be required, under the direction of the Department of English to remove such deficiency before graduation.

GENERAL INFORMATION

SESSIONS AND TERMS

The sessions of the Texas Technological College consist of the regular annual session of approximately thirty-six weeks and the summer session. The annual session is divided into three terms, each comprising a comparatively distinct unit. The summer session is equal in time and amount of work done to any one of the regular session terms.

At the close of each term, examinations are given and final grades for the term recorded. A student may enter at the beginning of any term, provided courses are offered that will fit his schedule.

REGISTRATION

At the beginning of each term a certain amount of time is set aside definitely for the registration of students. At that time class and other work is suspended and the College gives its entire time to placing the students properly. Students are expected to enroll on the day set aside for registration, and failure to do so entails the payment of a late registration fee.

TRANSCRIPT OF HIGH SCHOOL CREDITS

Students proposing to enter the College and coming from high schools should have a transcript of their high school cred-

its sent to the Registrar of the Texas Technological College by September 1st of the year in which they wish to enroll. This transcript should show that the student has been graduated from the high school with not fewer than fifteen units and should be signed by the superintendent or the high school principal.

TRANSCRIPT OF COLLEGE CREDITS

Students who have attended other colleges and have made good in such colleges will be welcome in Texas Technological College if they feel that their particular needs can be better met at this institution. In such cases they should have the registrar of the college attended send a transcript of their college credits, including entrance units, to the Registrar of the Texas Technological College. Such transcript should carry with it honorable dismissal from the institution attended, and should be forwarded to the College at least five days before the date on which the student expects to enter.

WITHDRAWAL FROM COLLEGE

A student who finds it necessary to withdraw from school before the close of the term should apply to the dean of the school in which he is registered for permission to withdraw. A student under twenty-one years of age should first consult his parents and should bring with him a written statement showing that he has his parents' permission to withdraw. If the dean is convinced that withdrawal is necessary, the student will be given honorable dismissal from the College.

REGULATIONS REGARDING ABSENCES

1. Students are required to be diligent in the pursuit of their studies and regular in their attendance at class. Those who fail to meet these requirements will be requested to withdraw from college.

2. Students are required to attend all meetings and examinations of courses for which they are registered. For each twelve absences per term in any or all subjects, the student will be required to complete one extra hour for graduation. The grade point rule is to apply to extra hours thus required.

3. Absences with athletic teams, debating teams, or other organizations which leave the College on official work, and absences of individuals who are permitted by the President or the deans to leave the College on official business pertaining to the College, or some organization thereof, are counted at half rate, provided the coach, manager, or other person in charge, files with the registrar before leaving the College a certificate upon a form prescribed by the College, for each student who proposes to make the trip.

4. Absences due to sickness of the student, or of some member of his immediate family, or to death in the student's immediate family, count at half rate, provided the student files in the office of the Registrar, not later than one week after his return to his classes, upon a form prescribed by the College, a statement of the cause of his absence, verified by the certificate of the attending physician. Such certificate forms may be obtained from the office of the registrar and also from the College physicians.

Students incurring absences in accordance with the regulations as stated in section three and section four may have the privilege of making up the lost recitations, as evidenced by turning in written work, or in some other manner satisfactory to the instructor concerned. When such lost recitations have been made up, the remaining absences are removed. Applications for the privilege of making up absences must be made to the registrar and approved by the dean of the respective school within one week from the time of return to the College.

ADDING SUBJECTS

If it appears desirable for a student to take up an additional subject, after the regular registration period, the procedure should be as follows:

- (1) Permission from the dean of the school in which the student is enrolled should be obtained.
- (2) Approval of the instructor of the subject should next be obtained on duplicate add cards supplied by the dean's office.
- (3) The dean's approval of the add cards should then be obtained.
- (4) The student should present the approved duplicate add cards to the business office and pay a fee of \$1.00.

DROPPING SUBJECTS

If it appears advisable for a student to drop a subject he should first take the matter up for approval by the dean of the school in which he is registered.

Student's names will be kept on the rolls and absences reported until the instructor receives notice from the registrar's office that the dean has approved the dropping of the subject.

SUSPENSION FROM COLLEGE

If a student convinces the authorities of the College that he is proving an unworthy citizen of the College community and fails to react in the right way to the counsel given him, such a student is dropped from the institution's class rolls. Such suspension may be for the remainder of the term or of the school year, or it may be made permanent. In no case are fees remit-

ted to a student suspended from school by the College authorities.

PHYSICAL EDUCATION

A minimum of two years physical education for women and physical training or military training for men is required for graduation from the College. Participation in major college sports can be substituted for the regular work in physical education or physical training during the time engaged in college sports upon the recommendation of the coach of the various sports.

EXPLANATION OF COURSE NUMBERS

The numbers used for designating the courses are uniform in each of the four schools and regularly consist of three digits. Reckoning from left to right the first digit designates the college year in which the course is to be taken; the second digit shows the number of credit hours carried with the course, while the other digit or digits represent the course number.

GRADES OF SCHOLARSHIP

The marking system used in the College is: A, excellent; B, good; C, fair; D, passing; E, condition; Inc., incomplete; F, failure.

The grade of E may be raised to a passing grade by the student's making a grade of C or better in the succeeding term of a continuous course.

The grade of Inc. is given in general because of incomplete work in a course, and may be raised to a passing grade within one year by the completion of the required work.

GRADE POINT REQUIREMENTS FOR GRADUATION

To secure any degree in this College a student must receive as many grade points as he is required to make term hours. For grade A, three grade points are awarded for each term hour; for grade B, two points; for grade C, one point; for grade D, no points.

No grade points are required or allowed for credits accepted from other institutions, for credits made in this College prior to September 1, 1926, or for credits made in physical education or physical or military training. A student who has the number of term hours required for graduation, but not the corresponding number of grade points, may satisfy the grade point requirement by taking additional courses until the grade point requirement has been met.

PRESENT ORGANIZATION OF COLLEGE COURSES

For the beginning year, 1925-26, courses were definitely organized for the freshman and sophomore years. However, certain students of junior standing or above who lacked freshman or sophomore subjects enrolled in the College. For the second year junior courses were regularly scheduled and a number of senior courses given due to the insistent calls for such courses. Beginning with the year 1927-28 the full four years' work was given in all the Colleges.

THE COLLEGE BOOKSTORE

For the convenience of the students and faculty the College maintains a bookstore, at which all school books, tablets, pencils, drawing sets, etc., may be purchased. The bookstore is located in one of the College buildings and is kept open at practically all school hours.

STUDENT LIFE REGULATIONS

Housing Regulations.—Students, both men and women, not residing with their parents while attending the College, are expected to conduct themselves in a proper and reasonable manner in their rooming houses, maintaining at all times conditions suitable for quiet study. They are not allowed to room or board at any house not approved by the faculty for that purpose.

A student who engages room, or room with board, may not change his place of residence unless by request of the proprietor, or unless given permission to move by the dean to whom he is responsible.

A student who is sent to the hospital shall continue to pay his room rent in full to the end of the month, and shall pay board in full for the first three days.

The proprietor of a rooming or boarding house on the approved list is required to report any cases of misconduct of such a nature as to interfere with the general good order of the house.

Official Lists of Rooming Houses.—The College has a standing committee on house arrangements for students. This committee attempts to furnish a list of approved boarding and rooming places for men and women.

In order to be placed on this list, the proprietor must be a person of good moral character, and must be willing to co-operate with the College in carrying out its regulations. The house must be used for rooming men or women exclusively, unless such a house is given over entirely to married couples. A house should be screened, should have sewerage connections, have hot water available in the bathrooms, and have adequate heating facilities for bedrooms. There should be a parlor available in each girls'

house. Failure on the part of the householders to provide the accommodations specified should be reported to the housing committee.

Housing Accommodations for Men.—Rooming and boarding houses are being operated near the campus. Cheri Casa and other dormitories have been opened. A list of approved boarding houses will be furnished upon application to the Information Bureau.

Housing Accommodations for Women.—College Inn, a girls' dormitory, and boarding and rooming houses are available within a short distance of the College. A list of approved boarding houses will be furnished upon application to the Dean of Women.

Changing Rooming Places.—Much inconvenience has resulted from the seeming promiscuous changing of rooming places on the part of a comparatively large number of men of the College. In several cases it has been impossible to deliver sick messages to young men who did not live at the place named on their schedule cards. It is probable that the men have not fully realized the necessity of keeping the College notified as to their Lubbock address. Definite consideration by the College authorities has been given to this promiscuous changing of boarding places and the following announcement is authorized:

If a young man finds it necessary to change his place of residence in Lubbock he must come to Mr. Cecil Horne at the information office and make his request known, filling out a blank which is kept for that purpose. Permission to move will not be withheld from any student where there is good reason for moving. On the other hand, students changing their addresses without permission will subject themselves to serious discipline at the hands of the College authorities.

Women desiring to move should make application to Mrs. Mary W. Doak, Dean of Women.

MEDICAL SERVICE FOR STUDENTS

The Lubbock Sanitarium agrees to render the following service to any and all students enrolled in Texas Technological College for the year 1928-29.

a. Each student will be given a thorough physical examination as soon as possible after his entrance into the school. In case of abnormalities, the student will be given advice with a recommendation as to treatment.

b. Each student will be allowed free consultation with the school physician at any time that such consultation is desired.

c. The physician will make, without further charge, calls at the student's home or at the hospital.

d. Each student will, in case of necessity, have free use of the hospital facilities of the Lubbock Sanitarium, including board, lodging and general nursing in the hospital, provided this need does not exceed twenty-one days in any one school year. In the event of an epidemic, this limit may be reduced, and in case of necessity, the limit may be extended. Any reduction or extension will be made only upon the recommendation of the President of the College. These provisions apply only to the relief of acute conditions, and do not include special nursing unless authorized by the President of the College in cases where students are financially unable to employ a special nurse.

e. If an ambulance is required to carry the student to the hospital, this will be furnished without additional charge.

f. The student will receive without further cost any pathological or X-ray examinations which may be needed.

g. Any minor surgical operations which may be needed by the student, such as for cuts, sprains, simple fractures, and vaccinations, will be performed for him without further cost.

h. The student will receive without further cost examinations and treatments by specialists for eye, ear, nose and throat difficulties. This, however, does not include operations for the removal of tonsils or for chronic nasal diseases or for special operations on the eye or ear.

i. On all operative work not covered by the medical fee, students will receive a discount of 25 per cent from the regular charge.

j. First aid service consultation with the school physicians can be had at stated hours each day at an office provided by the College on the campus. This does not interfere with the provision in paragraph *c* above.

k. Daily services of a trained nurse can be had at the office on the campus during the school year at hours to be announced.

Members of the faculty of Texas Technological College and their families may receive medical and surgical attention at a discount of 25 per cent.

Casualty work for employes injured while on duty in their respective services for the College will be cared for by the staff without charge. This does not include hospitalization, and will apply only to those while on duty during working hours.

The Lubbock Sanitarium hereby agrees to report promptly to the Dean of Women of the College every case of illness among the girls of the College and to report to the Dean of Men every case of illness among the boys of the College, with an adequate statement of the nature of the illness.

The Lubbock Sanitarium agrees that all case records of students remaining in Tech College after the period covered by this agreement will be available to the College authorities on request.

The Lubbock Sanitarium agrees to furnish the Texas Technological College quarterly reports of all services rendered to the students of the College under this agreement.

SCHOLARSHIPS AND PRIZES

Wyatt C. Hedrick Scholarship of \$250.00 for the highest scholastic standing awarded to James Alldredge of Lubbock, Texas.

Scholarship for highest excellence in oratory, amounting to \$250.00, awarded to Hal Lary of Clovis, New Mexico.

John W. Carpenter Scholarship of \$250.00 for the student with highest excellence in Textile Engineering awarded to Cary H. Lodal of Gordon, Texas.

Cliffor B. Jones Scholarship of \$250.00 for student with highest excellence of work in Agriculture awarded to Ronald C. Tom of Stanton, Texas.

Fort Worth Star-Telegram Scholarship of \$250.00 for best all-round athlete awarded to Howard DeWitt of Fort Worth, Texas.

Faculty Scholarship of \$125.00 for some worthy young man or woman awarded to Miss Floy Anglin of Tahoka, Texas.

Scholarship of \$100.00 for the best excellence in English awarded to Mrs. Jewel G. Bond of Lubbock, Texas.

Scholarship for highest excellence in English among men, amounting to \$100.00, awarded to Alva Dayle Wallace of Mt. Calm, Texas.

The E. O. Thompson Scholarship of \$250.00 to the most worthy young women in the Junior Class awarded to Miss Lila Allred of Chillicothe, Texas.

The E. O. Thompson Scholarship of \$250.00 to the most worthy young man in the Junior Class awarded to Mr. June Hewett of Plainview, Texas.

Pan-Hellenic cash prize of \$25.00 to freshman student in Home Economics making the highest grades awarded to Miss Roxana Ruth Ford of Lubbock, Texas.

Scholarship of \$100.00 for best College Citizen among the women awarded to Miss Nell Goodloe of Lamesa, Texas.

Scholarship of \$100.00 for best College Citizen among the men awarded to William R. Sewell of Slaton, Texas.

Unabridged dictionary awarded by Southern Scholarship Society to freshman making the highest average awarded to Mary Louise McNeill of Lubbock, Texas.

STUDENT EMPLOYMENT

Students desiring employment should file applications with the Student Employment Bureau after they have definitely decided to enter Texas Technological College. It is advisable to present entrance credits to Registrar for approval before making such application. It will be necessary for every student receiving aid from the Bureau to establish fully the need for such assistance.

The Student Employment Bureau extends every possible aid and guidance to the worthy student, but does not assume responsibility for the success of his efforts. It is not wise for anyone to come to Texas Technological College with the expectation of earning all expenses unless a position has been secured in advance. A good many earn all or a major portion of their expenses, but this is often at a sacrifice of health or creditable classroom work. Every student should have some reserve fund to provide for unexpected contingencies. The boy or girl with good health, strong character, and pleasing personality will usually succeed where these qualities are combined with industry and reliability.

Worthy students have been materially aided by the Lubbock Rotary Loan Fund and by loans from certain other organizations and from individuals who believe that this kind of investment is very much worth while. Reference to student scholarships and prizes mentioned elsewhere in this catalog is suggested.

An average of 300 students have been working regularly during the long term, earning a total of approximately \$50,000. The average wage paid is 35 cents per hour.

Students in Texas Tech are engaged in almost every imaginable kind of legitimate work. Some of the more common forms of employment are listed below:

Abstract clerk	Library
Greenhouse attendant	Newspaper office and
Store Clerk:	Paper route
Grocery	Cook
Ready-to-wear	Collector
Drug	Painter
Wholesale	Bookkeeper
Hardware	National Guard caretaker
Book	Laboratory assistant
Auto parts	Meat cutter
Housekeeper	Cab driver
Transfer Man	Delivery truck
Pipeline laborer	Dishwasher
Storeroom manager	Carpenter
Steel welder	Janitor

Farm work	Ice Delivery
Truck driver	Barber
Filling station helper	Waiter
Tailor	Photographer
Dairy work	Western Union operator
Lineman	Printer
Soda dispenser	Garage assistant
Chemistry assistant	Postal service messenger
Gardener	Drafting and blue
Solicitor	printing
Advertising office	Hotel night clerk
Cafeteria	Musician

BOARDING

While the College does not have its dormitories, there are three privately owned dormitories, one for men and two for women, where students find good accommodations. The management of these dormitories and the College authorities co-operate closely, thus insuring good results to the students. The dormitories are regularly heated with steam, have hot and cold running water in each room, and other modern conveniences, making very satisfactory students' homes.

Prices for board and room range from \$35.00 to \$37.50 per month.

Students who prefer to room in private homes find ample facilities near the College. Approved lists of rooming houses, both for men and for women, are always kept at the College and are being continuously revised. The Dean of Women, with her assistants, looks carefully after boarding and rooming houses for young women, while a regular boarding house committee of the College faculty assists young men.

Prices for room and board in private homes range from \$25 to \$35 per month.

THE COLLEGE CAFETERIA

The College maintains on the campus a cafeteria operated under the supervision of the School of Home Economics. Here a variety of wholesome, well-cooked food is served for the benefit of the students and faculty. The charges for food and service are exceedingly moderate and make it possible for a student by careful selection to reduce the cost for meals to a minimum.

A number of young men and young women earn their meals by work in the cafeteria.

SCHOOL OF LIBERAL ARTS

JAMES M. GORDON, Dean

STATEMENT OF AIM

The College of Liberal Arts aims to afford its students a liberal education in the humanities and sciences. It offers opportunity also to students who wish to prepare for the schools of law, medicine, business administration and other schools. The work of the freshman and sophomore years can be so shaped as to include definite requirements for admission to any of the schools above named. Students expecting to enter a profession should consult with the Dean of the College of Liberal Arts at the end of their freshman year relative to the best way of combining their college and professional work.

REQUIREMENTS FOR GRADUATION

Entrance Requirements.

1. English	3 units
2. A foreign language	2 units
3. Mathematics.	
Plane Geometry 1	
Algebra 1	2 units
4. Two from either	
(a) History, Civics, Sociology, or	
(b) Botany, Zoology, Chemistry, Physics, Geology,	
General Biology, General Science, Physiog-	
raphy, etc.	2 units
5. From the group not chosen under (4)	1 unit
6. From any accredited high school subjects, not more than	
four of which may be vocational subjects	5 units
Total	15 units

A list of the subjects and units accepted for admission will be found on page 20.

REQUIREMENTS IN THE COLLEGE

1. English	2 courses	2 courses
2. Foreign Language	2 courses	
If three or four units have been		
offered in high school and the		
same language is continued in		
College		1 course
*3. Social Science: history, govern-		
ment, economics, sociology	2 courses	
If three units have been offered		
in high school		1 course
4. Mathematics	1 course	

If three units have been offered in high school_____			2/3 course
*5. Science (must be laboratory, sci- ence) _____	2 courses		
If two units (3 if general or in- troductory science is included) have been offered in high school _____			1 course
6. Psychology or philosophy_____	1/3 course	1/3 course	
Total_____			9 1/3 courses 6 courses
7. Physical Education _____	2 years	2 years	

In the School of Liberal Arts only one bachelor's degree is conferred, the Bachelor of Arts degree (B. A.). In order to receive this degree the candidate must have met the entrance requirements, have been regularly enrolled in this college, and must have completed the following courses:

1. English, two courses.
2. Mathematics, one full course. If three units of mathematics were offered in high school, two-thirds of a course in college will satisfy the requirements.
3. Social science, two courses. If three units were offered in high school, one college course will meet the requirement. Provided if two courses are required they may not both be taken in the same subject.
4. Foreign languages, two courses. If three or four units in one language have been offered in high school and the same language is continued in college, one course will meet the requirement.
5. Sciences, two courses. If two units of science were offered in high school (three if general or introductory science is included) one college course will meet the requirements. Provided if two courses are required they may not both be taken in the same subject.
6. Philosophy or psychology, one-third course.
7. Additional courses to make the sum total of twenty courses or 180 term hours exclusive of physical or military training, two years of which must be taken without college credit.
8. As a part of the requirement of seven, there must be a major sequence consisting of at least 45 term hours in one subject and one minor of at least 27 term hours or two minors of

* If two courses are required they may not both be taken in the same subject.

at least 18 term hours each. In counting the number of hours for major or minor subjects, no part of a continuous course will be counted until the entire course has been completed. The proper sequence and gradation of courses taken to satisfy the requirements of majors and minors are to be left to the department in which the major is taken, subject to the approval of the Advanced Standing Committee.

9. A minimum residence of one year at the Texas Technological College, and if only one year is given to this College it should be the senior year.

10. Two years' work in physical education.

The specific scholastic requirements are summed up as follows:

COURSES FOR FRESHMAN YEAR

For all Liberal Arts students except pre-medical, pre-law, and pre-business administration students.

1. English.
2. Any three of the following:
 - Foreign language.
 - Mathematics.
 - Science.
 - Social Science.
3. A fifth subject in (2) or elective.

COURSES FOR SOPHOMORE YEAR

1. Any of the curriculum constants not already completed.
2. Courses in the degree group which the student may elect. The following degree groups are suggested:
 - English.
 - Foreign language.
 - Mathematics.
 - Science.
 - Social science.

COURSES FOR JUNIOR AND SENIOR YEARS

Continue the degree group selected, which must include a major of forty-five term hours in one subject, together with a minor of twenty-seven term hours in one subject or one minor of eighteen term hours in each of two subjects.

The total number of term-hours for graduation is one hundred and eighty, exclusive of six term-hours of physical education or physical or military training.

COURSES LEADING TO LAW, MEDICINE OR BUSINESS ADMINISTRATION

While Texas Technological College does not have a school of law or of medicine, it offers college courses preparatory to admission to regular schools of medicine and of law. Business administration courses are given in the School of Liberal Arts of this College.

STUDIES PREPARATORY TO LAW

The minimum requirement for admission in any standard law school is fifteen (15) entrance units, as prescribed by the School of Liberal Arts, and two full years (90 term hours) of college work.

The following course of study is recommended for students who contemplate the study of law:

Freshman year: English, Government, Economics, Mathematics, a natural science.

Sophomore year: English, English History, American History, Government, Accounting.

Junior year: If the student desires to take a third year of work preparatory to the study of law, which is always advisable, the work should be selected mainly from the social science group, and should include psychology or philosophy.

BACHELOR OF ARTS DEGREE FOR PRE-LAW STUDENTS

Pre-Law students may obtain the Bachelor of Arts degree from the Texas Technological College upon the completion of three years of work in the Liberal Arts School of this College and three years' work in a standard law school.

The three years' work in the Texas Technological College must be of such a nature that it will satisfy all graduation requirements with the exception of the major and minor subjects.

STUDIES PREPARATORY TO MEDICINE —

The minimum entrance requirements are fifteen standard units as prescribed by the School of Liberal Arts and a minimum of two full years of college work. The following curriculum is recommended for students who plan to study medicine:

Freshman Year

English 131, 132, 133—Composition and Rhetoric.

German 131, 232, 233—German for Beginners; or

French 131, 132, 133—French for Beginners.

Government 131, 132, 133—American Government.

Chemistry 141, 142, 143—Elementary General Chemistry for Pre-Medic Students.

Zoology 131, 132, 133—General Zoology for Pre-Medic Students.

Sophomore Year

English 231, 232, 233—English and American Masterpieces.
 The foreign language begun in the freshman year (Course 231, 232, 233).
 Chemistry 343, 344, 345—Organic Chemistry.
 Physics 141, 142, 143—General Physics.
 Zoology 237, 238, 239—Vertebrate Anatomy.

Junior Year

Chemistry 237, 238, 239—Analytical Chemistry.
 Zoology 331, 332, 333—Animal Histology and Embryology.
 The language not studied in the freshman and sophomore years.*
 (Course 131, 132, 133).
 Philosophy or Psychology, one-third course.
 Electives, one and two-third courses.

Senior Year

Chemistry, one or two additional advanced courses.
 Zoology, one or two additional advanced courses.
 The language begun in the junior year (Course 231, 232, 233).
 Electives sufficient to make five courses.

BACHELOR OF ARTS DEGREE FOR PRE-MEDICAL STUDENTS

In addition to the above specific requirements, the following general conditions are to be met if the student wishes to obtain the degree of Bachelor of Arts from Texas Technological College:

1. At least one year (the senior year) of residence at Texas Technological College.
2. Five advanced courses, at least two of which are to be in Chemistry, and at least two in Zoology.
3. Two years of physical training or military science.
4. The grade point requirements specified for the degree of Bachelor of Arts.

The Pre-Medical students may obtain the degree of Bachelor of Arts from Texas Technological College by three years of work in Liberal Arts and two years in a Class A medical college upon satisfying the following conditions.

1. A minimum of two years of resident work in Texas Technological College, including the junior year.
2. Satisfactory completion of the prescribed and elective courses listed in the Pre-Medical curriculum for the freshman, sophomore, and junior years.

* A student may, after consultation with the professor in charge of pre-med work, substitute Spanish for the second foreign language. This is done, however, at the student's own risk, since most medical colleges will not accept Spanish for entrance.

3. Submission from a Class A medical college of properly approved credentials to the effect that he has completed satisfactorily the first two years of work leading to the degree of Doctor of Medicine.

4. Two years of physical training or military science.

5. One hundred and thirty-five grade points.

BUSINESS ADMINISTRATION

The Department of Economics and Business Administration is one of the departments in the College of Liberal Arts and offers the degree of Bachelor of Arts in Business Administration to students who fulfill the special requirements of the Department for this degree. No requirements for the Bachelor of Arts degree are waived. Where electives may be chosen the Department of Economics and Business Administration has in some instances specified the electives to be taken. Specialization started in the third and fourth years; the first two years are given over to requirements and special attention to fundamentals. Students who do not seek the special Degree of "Bachelor of Arts in Business Administration" may major or minor in Economics and Business Administration in order to fulfill the general requirements of the School of Liberal Arts.

REQUIREMENTS FOR THE BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

Freshman Year

English	131, 132, 133	9 hours
Government	131, 132, 133	9 hours
A Natural Science		
Mathematics	L137 a, b, c	9 hours
Foreign Language		9 hours
Physical Training		9 hours

Sophomore Year

English	231, 232, 233	9 hours
Economics	231, 232, 233	9 hours
Introduction to Accounting	A234, A235, A236	9 hours
Foreign Language		9 hours
American Economic History		9 hours
Physical Training		

Junior and Senior Years

Economics	L335, L335	9 hours
Mathematics	L238, a, b, c	9 hours
Psychology or Philosophy		3 hours

Twenty-seven hours from the divisions of Marketing, Production, Finance or Accounting must be taken to complete the major requirements of forty-five hours as Economics L334, L335 does not carry a major credit. The remaining forty-five hours for graduation may be approved electives.

TRANSFERS FROM OTHER COLLEGES

The minimum residence requirements for graduation for students who are transfers from other colleges is one school year or three terms of twelve weeks each. Furthermore, any transfer who expects to be graduated from the Texas Technological College must meet the regular requirements for major and minor subjects, and must complete a minimum of forty-five term-hours in this institution.

THE MASTER OF ARTS DEGREE

During the College year of 1927-28, plans were perfected whereby the Master of Arts degree will be given in the College of Liberal Arts to students meeting the requirements for that degree. At the present time, work leading to this degree is offered in the following departments, namely:

Biology.

Economics and Business Administration.

Education and Psychology.

English.

Geology.

Government.

History.

Mathematics.

Philosophy and Sociology.

The present regulations in meeting the requirements for the degree are as follows:

Admission to Candidacy: To be admitted to candidacy for the Master of Arts degree, the student must be a graduate of Texas Technological College, or of another institution whose degree is accepted by a recognized association of colleges and which was so recognized when the degree was conferred. All other requirements as to admission are to be left to the department in which the student's graduate work is to be done. Application for the degree must be determined not later than three months after enrollment.

Amount of Work Required: The minimum amount of work beyond the bachelor's degree required for the master of arts degree is forty-five term hours. A maximum of nine term hours of graduate work may be accepted from another institution of equal rank. A maximum of fifteen term hours of graduate work may be carried in any one term.

Grades: No course may be credited if the grade is lower than "B".

Major and Minor Subject: The candidate for Master of Arts degree shall take at least two courses or eighteen term hours in the major subject and in addition shall complete a thesis in the major subject which may count as much as nine term hours; provided, however, that all of the work may be done in one department.

Thesis: A thesis must be submitted to the major department and be accepted by the major department and the Graduate Committee before the Master of Arts degree is granted. A maximum of nine term hours may be credited as research on a thesis.

Residence: A minimum of three terms of residence is required. Teachers in service, doing part time work in the College, may offer a maximum of fifteen term hours of such work. In no case will the degree of Master of Arts be conferred for less than two quarters of residence work with full schedule.

Examinations: Written examinations are to be entirely in charge of the departments concerned. In addition there must be an oral examination which shall be conducted by the major department, but at which the minor department or departments shall be present; also representatives of the Graduate Council or Committee shall be present and take part.

Language Requirement: A reading knowledge of at least one foreign language is required. Any student who presents two full College courses of eighteen term hours of a foreign language will be presumed to have a reading knowledge of that language. A student unable to offer such college courses will be required to furnish a certificate from the head of the department of the language offered stating that he has a reading knowledge of such foreign language.

COURSES OF INSTRUCTION

DEPARTMENT OF BIOLOGY

Professor Studhalter. Associate Professors Reed, Landwer, League. Instructors, Mrs. Studhalter, Sealey.

I. BOTANY

131, 132, 133. *General Botany.*

Open to freshman students.

231, 232. *Plant Morphology.*

Prerequisite: Botany 131, 132, 133.

233. *Taxonomy of the Spermatophytes.*

Prerequisite: Botany 131, 132, 133.

330. *Plant Pathology.*

Prerequisite: 18 term-hours in Biology (including Botany 131, 132, 133) and 9 term-hours in chemistry.

331, 332, 333. *Plant Physiology.*

Prerequisite: 18 term-hours in botany; prerequisite or parallel: 9 term-hours in chemistry.

431, 432, 433. *Histology and Cytology of Plants.*

Prerequisite or parallel: Botany 331, 332, 333.

434, 435, 436. *Taxonomy of the Vascular Plants.*

Prerequisite: Botany 233; prerequisite or parallel: Botany 331, 332, 333.

II. ZOOLOGY

131, 132, 133. *General Zoology.*

Open to freshman students.

134, 135, 136. *The Human Body.*

Open to freshman students.

231, 232, 233. *Invertebrate Zoology.*

Prerequisite: 9 term-hours in zoology.

234, 235. *Principles of Zoology.*

Prerequisite: Botany 131, 132, 133; this course is intended primarily for agriculture students and is not open to students who have completed Zoology 131.

236. *Economic Entomology.*

Prerequisite: Zoology 235 or Zoology 131, 132, 133.

237, 238, 239. *Vertebrate Anatomy.*

Prerequisite: 9 term-hours of zoology.

331, 332, 333. *Animal Histology and Embryology.*

Prerequisite: 18 term-hours in zoology.

431, 432, 433. *Zoological Problems.*

Prerequisite: Zoology 331, 332, 333.

III. BACTERIOLOGY

231. *Bacteriology for Agriculture Students.*

Prerequisite: 9 term-hours in botany or zoology.

232, 233. *Household Bacteriology.*

Prerequisite: 9 term-hours in biology.

331, 332, 333. *General Bacteriology.*

Prerequisite: 18 term-hours in botany or zoology.

330. *Soil Bacteriology.*

Prerequisite: 18 term-hours in biology, including 3 term-hours in bacteriology.

IV. BIOLOGY

211, 212, 213. *The Teaching of Biology.*

Prerequisite: 18 term-hours in Biology Department.

411, 412, 413. *Biology Seminar.*

Prerequisite: Senior standing in biology; students with junior standing may be admitted only with the consent of the head of the department.

FEES

The deposit for each course in the Department of Biology is \$3.00. The laboratory fees vary with the courses as follows: Botany 233, Zoology 236, \$1.00; Botany 330, Bacteriology 231, and 330, \$1.50; Botany 231, Zoology 231, and Bacteriology 232, \$3.00; Botany, 131, 331, 431, 434, Zoology 131, 231, 237, 331, 431, and Bacteriology 331, \$4.00.

DEPARTMENT OF CHEMISTRY

Professors Read, Ray, Craig; Assistant Professor Slager. Instructors Marshall, Read. Teaching Assistant Galbraith.

141, 142, 143. *Elementary General Chemistry.*

234, 235, 236. *The Principles of Chemistry.*

Prerequisite: Chemistry 141-2-3.

211-212-213. *The Teaching of Chemistry.*

Prerequisite: Chemistry 234-5-6, and one full course in Education. This course may be taken parallel with Chemistry 234-5-6.

237-238-239. *Analytical Chemistry.*

Prerequisite: Chemistry 141-2-3. (It is advised that Chemistry 234-5-6 be taken either previous to or parallel with this course).

343-344-345. *Organic Chemistry.*

Prerequisite: Chemistry 141-2-3.

331-2. *Organic Chemistry.*

Winter and Spring terms.

Prerequisite: Chemistry 141-2-3.

336-337-338. *Industrial Chemistry.*

Prerequisite: Chemistry 234-5-6, and Chemistry 343-4-5.

339. *Power Plant Chemistry.*

Prerequisite: Chemistry 141-2-3.

333-334-335. *Organic Preparations.*

May be taken as separate third-courses.

Prerequisite: Chemistry 343-4-5. May be taken parallel with 345.

431-432-433. *Technical Analysis.*

May be taken as separate third-courses.

Prerequisite: Chemistry 237-8-9, and one of the courses in Organic Chemistry.

441-442-443. *Physical Chemistry.*

Prerequisites: Chemistry 234-5-6, Chemistry 237-238-239, and Chemistry 343-4-5. Not less than six term-hours of Calculus.

437-8. *Physiological Chemistry.*

Winter and Spring terms.

Prerequisites: Chemistry 141-2-3, and either of the courses in Organic Chemistry.

Graduate Courses: Courses numbered 333, 334, 335; 431, 432, 433 and 441, 442, 443 may be taken for graduate credit.

FEES

The laboratory fee for each course in the Department of Chemistry is \$4.00. A deposit of \$4.00 is required for Chemistry 141-2-3 and for Chemistry 153. A deposit of \$6.00 is required for all other laboratory courses. After deduction for breakage and non-returnable material, the remainder of the deposit is returned to the student. No fee is returnable after a student has been in the course more than two weeks.

DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

Professor Condray. Associate Professor Nissley,
Assistant Professor Corry.

• BASIC COURSES

231, 232, 233. *Introduction to Economics*. Open to Sophomores. (*)

A234, A235, A236. *Introduction to Accounting*. Open to Sophomores. (*) (xx).

331, 332, 333. *Introduction to Business Administration*.
Prerequisite: Economics 231, 232, 233. (*) (xx)

L334, L335. *Commercial Law*.

Prerequisite: Gov't. 131, 132, 133. Economics 231, 232, 233. (*)

M331, M332, M333. *Marketing Administration*.

Prerequisite Eco. 231, 232, 233. (*) (xx).

M334, M335, M336. *Business Communication*.

Prerequisites: Eco. 231, 232, 233. Laboratory fee, \$4.00 per term. (xx).

M421, M422, M423. *Business Forecasting*.

Prerequisite M331, M332, M333. F337, F338, F339. (xxx).

M431. *Advertising Principles and Practice*.

Prerequisite M331, M332, M333. (xxx).

M433. *Salesmanship*.

Prerequisite: M331, M332, M333. (xxx).

M435, M436. *Transportation*.

Prerequisite: M331, M332, M333. (xxx).

M437. *Retail Selling and Store Management*.

Prerequisite: M331, M332, M333. (xxx).

PRODUCTION DIVISION

P331, P332, P333. *Industrial Management*.

Prerequisite: Eco. 231, 232, 233. (*) (xx).

P431, P432, P433. *Personnel Administration*.

Prerequisite: P331, 332, P333. (xxx).

P421, P422, P423. *Trade Unionism*.

Prerequisite: P331, P332, P333. (xxx).

FINANCE DIVISION

F321, F322, F323. *Money and Banking.*

Prerequisite: Eco. 231, 232, 233. (*).

F337, F338, F339. *Administration of Finance.*

Prerequisite: Eco. 231, 232, 233.

F437. *Advanced Banking Practice.*

Prerequisite: F337, F338, F339. (xxx).

F438. *Investments.*

Prerequisite: F337, F338, F339. (xxx).

F439. *Corporation Finance.*

Prerequisite: F337, F338, F339. (xxx).

F435, F436. *Risk and Risk-Bearing.*

Prerequisite: F337, F338, F339. (xxx).

F433, F434. *Insurance.*

Prerequisite: F337, F338, F339. (xxx).

F430. *Public Finance.*

Prerequisite: F337, F338, F339. (xxx).

ACCOUNTING DIVISION

A331, A332, A333. *Corporation Accounting and Budgetary Control.*

Prerequisite: A234, A235, A236. (*).

A421, A422, A423. *Cost Accounting.*

Prerequisite: A331, A332, A333. (xxx).

A434, A435, A436. *Auditing and Advanced Problems.*

Prerequisite: A331, A332, A333. (xxx).

A437. *Income Tax Procedure.*

Prerequisite: A331, A332, A333. (xxx).

(Laboratory Fee.—A fee of four dollars (\$4.00) per course is charged as a laboratory fee in connection with all courses in accounting).

Explanation of Symbols.

* Offered also by correspondence.

xx Offered also by extension.

xxx May be taken for graduate credit.

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Professors Evans, Garlin. Associate Professors Clement,
Parker, Shaver.

CERTIFICATE REQUIREMENTS

Certificates valid in Texas and other States may be secured for college courses taken in the Texas Technological College. Students desiring to teach in New Mexico, Oklahoma, Arizona, or other States, should consult the head of the department concerning certificate requirements in these States.

The following regulations govern the issuance of teachers' certificates in Texas:

Four-Year Elementary or Two-Year High School Certificate.

On completion of ten college courses in a first class college including 108 hours in English and 108 hours in elementary education, an elementary certificate valid for four years, or a high school certificate valid for two years, may be issued. Any course in education may be used for the two-year high school certificate.

Six-Year Elementary or Four-Year High School Certificate.

On completion of ten college courses in a first class college, including 216 hours in Education, a four-year high school certificate, or a six-year elementary certificate, may be used. Any two courses in Education will be accepted for the elementary certificate valid for six years, but an applicant must have credit for one full course that bears wholly on high school education before the high school certificate may be issued.

Six-Year High School Certificate.

On completion of fifteen college courses, including three courses in Education, a six-year high school certificate may be issued, provided one course bears wholly on high school education, and one course must include a minimum of thirty-six recitation hours in practice teaching.

Permanent High School Certificate.

A permanent high school certificate may be issued on a B. A. degree, or its equivalent, and four courses in Education. Two of the courses may be any course in Education, one of the courses must bear wholly on high school education, and one course must include methods, observation of methods, and practice in teaching.

A permanent high school certificate may be issued on a B. A. degree, or its equivalent, two courses in Education, and three years' teaching experience. One course in Education must bear wholly on high school education, and the teaching experience must be done after the degree is conferred.

OUTLINE OF COURSES

131. *Introduction to Education.*
132. *Classroom Organization and Control.*
133. *Methods of Teaching in the Elementary Grades.*
230. *Rural Education.*
- M234-5-6. *Teaching of Mathematics.*
Prerequisite: Mathematics L131-2-3, or L134-5-6, and one full course in Education.
232. *History of Education.*
Prerequisite: Sophomore standing.
233. *Measurement in Education.*
234. *Secondary Education.*
Prerequisite: Sophomore standing.
235. *The High School Curriculum.*
236. *Methods of Teaching in the High School.*
- B311, 312, 313. *The Teaching of Biology.*
- C311, 312, 313. (*Chemistry 211, 212, 213.*).
- D320. (*Engineering Drawing, 321.*).
- S310-11-12. *Teachers' Course in Spanish.*
- E330. *Teachers' Course in English.*
- D330. *Mechanical Drawing for Teachers. (Engineering Drawing 331, 332).*
331. *Principles of Education.*
332. *High School Problems.*
- 333-334. *Observation and Practice.*
335. *The Junior High School.*
336. *Educational and Vocational Guidance.*
337. *Classroom Tests.*
338. *The Teacher's Technique.*
339. *Every Teacher's Problems.*
431. *Educational Tests and Measurements.*
432. *Texas Educational System.*

433. *The Technique and Improvement of Elementary Education.*
434. *Education in the United States.*
Prerequisite: Education 232.
435. *The Curriculum.*
Prerequisite: Senior standing or consent of instructor.
436. *Public School Administration.*
Prerequisite: Senior standing or consent of instructor.
437. *School Publicity.*
438. *The Supervision of Instruction.*
439. *The Philosophy of Education.*
230. *Introduction to Psychology.*
231. *Educational Psychology.*
232. *General Psychology.*
331. *Child Psychology.*
335. *The Psychology of Adolescence.*
336. *Social Psychology.*
337. *Experimental Psychology.*

DEPARTMENT OF ENGLISH

Professors Carter, Mills, Smallwood, Doak. Associate Professors Gates, McGee, Fowler, Robnett. Adjunct Professors Murphy, Horne. Instructors Allen, Gill, Teague, Knickerbocker, Assistant Professor Strout.

- 131, 132, 133. *Composition and Rhetoric.*
- 231-2-3. *Survey of English Literature.*
- E231-2-3. *English for Technical students.*
- 134-5-6. *Journalism.*
- 237-8-9. *Journalism.*
332. *History of the English Language.*
337. *Advanced Grammar.*
- 334-5-6. *American Drama.*
- 430-1. *Survey of English Drama.*
- 422-3. *The Works of Shakespeare.*
439. *Contemporary Drama, Ibsen to Shaw.*

- 330. *Chaucer.*
- 333. *The Elizabethan Lyric.*
- 331. *Contemporary English Poetry.*
- 338-9. *American Poetry.*
- 537. *Spenser.*
- 434. *Milton.*
- 435-6. *English Romanticism.*
- 438. *Tennyson and Browning.*
- 530-1. *American Fiction.*
- 532-3. *English and Foreign Fiction.*
- 236. *Biblical Literature.*
- 437. *Advanced Argumentation and Debating.*
- 538. *Southern Literature.*
- 539. *Teaching of English in the High Schools.*

GRADUATE COURSES

- 534. *Old English.*
- 535. *Beowulf.*

COURSES BY CORRESPONDENCE IN ENGLISH

- 131-2-3. *Composition and Rhetoric.*
- 231-2-3. *Survey of English Literature.*
- 530. *American Short Story.*
- 331. *English Poetry.*
- 334-5-6. *American Drama.*
- 338-9. *Major American Poets.*
- 432-3. *Shakespeare.*
- 532-3. *English and Foreign Fiction.*
- 438. *Tennyson and Browning.*
- 439. *Contemporary Drama, Ibsen to Shaw.*

DEPARTMENT OF FRENCH

Professor Beck. Adjunct Professors Madonne, Henninger.
131, 132, 133. A course for beginners.

231, 232, 233. Grammar Review, Composition and Conversation.

Prerequisite: French 131, 132, 133, or two years of high school French.

331, 332, 333. *Rapid Reading of Modern Literature.*

Prerequisites. French 131, 132, 133, 231, 232 and 233, or four years of high school French.

431, 432, 433. *French Literature.*

Prerequisite: French 331, 332, 333, or its equivalent.

DEPARTMENT OF GEOLOGY

Professor Patton. Associate Professors Stainbrook, Robinson.
Instructor Sidwell.

141, 142, 143. *General Geology.*

231, 232. *Mineralogy.*

Prerequisite: Preceded or accompanied by general chemistry.

233. *Introductory Economic Geology.*

Prerequisite: Geology 231.

330. *Geologic Mapping.*

Prerequisite: Geology 141-2-3, and Engineering 230 or Engineering 241-2-3.

290. *Field Geology.*

Prerequisite: Geology 141-2-3.

311, 312, 313. *Geology of Texas.*

Prerequisite: Geology 141.

332, 333. *Engineering Geology.*

Prerequisites: None.

334, 335, 336. *Petrology.*

Prerequisite: A course in general geology and Geology 231.

337, 338, 339. *Invertebrate Paleontology.*

Prerequisite: Geology 131-2-3.

431, 432, 433. *Advanced Physical, Structural and Historical Geology.*

Prerequisite: Geology 141-2-3, 231-2-3 and 337-8-9.

434. *Ore Deposits.*

Prerequisite: Geology 141-2-3, 231-2-3 and 337-8-9.

435, 436. *Geology of Petroleum.*

Prerequisites: General geology, Ore Deposits 434.

437, 438, 439. *Advanced Paleontology.*

Prerequisites: Geology 337-8-9.

DEPARTMENT OF GERMAN

Professor Beck, Adjunct Professor Henninger.

131, 132, 133. *Beginning Course.*

231, 232, 233. *Grammar Review, Composition and Conversation.*

Prerequisite: German 131, 132, 133, or two years of high school German.

331, 332, 333.

Prerequisites: German 131, 132, 133, 231, 232, and 233, or four years of high school German.

DEPARTMENT OF GOVERNMENT

Professor Jackson. Associate Professor Pender.
Instructor Ballard.

131, 132, 133. *American Government.*

For freshmen and sophomores.

220. *Parliamentary Law and Practice.*

Open to all students except freshmen.

234. *Introduction to Political Science.*

Prerequisite: American Government.

235, 236. *Modern Governments.*

Prerequisite: American Government.

331, 332. *American Government.*

For juniors and seniors who have not had Government 131, 132, 133.

334. *Municipal Government.*

Prerequisite: American Government.

335, 336. *American Political Parties.*

Prerequisite: American Government.

337, 338. *American Diplomacy and Foreign Service.*

Prerequisite: American Government or American History.

339. *World Politics.*

Prerequisite: American Government or one college course in history.

421, 422, 423. *American Political Ideas.*

Prerequisite: American Government or American History.

431. *American Constitutional Law.*

Prerequisite: American Government or American History.

432, 433. *International Law.*

Prerequisite: American Government or one college course in History.

530. *Research.*

330. *Business Law.*

Open to juniors and seniors who have not had Economics L334, L335.

Business Law.

For number and description of course see Economics and Business Administration.

Public Finance.

For number and description of course see Economics and Business Administration.

DEPARTMENT OF HISTORY

Professors Granbery, Eaves, Ford, McKay.

Instructor, Carroll

131, 132, 133. *History of Civilization.*

231, 232, 233. *History of the United States.*

History 131, 132, 133 is prerequisite, though it may be taken simultaneously.

234, 235, 236. *History of England and the British Empire.*

237, 238, 239. *History of the Two Americans.*

Prerequisite: History 131, 132, 133.

331, 332, 333. *History of Europe to the Renaissance.*

Prerequisite: Two history courses, including History 131, 132, 133.

334, 335, 336. *History of Europe from the Reformation to the Present.*

Prerequisite: The same as the preceding.

337, 338, 339. *History of Latin America.*

Either History 231, 232, 233 or History 237, 238, 239 is prerequisite.

431, 432, 433. *History of Texas.*

Either History 231, 232, 233 or History 237, 238, 239 is prerequisite.

434, 435, 436. *History of the United States from the American Revolution to 1850.*

Either History 231, 232, 233 or History 237, 238, 239 is prerequisite.

437, 438, 439. *History of the United States from 1850 to the present.*

Either History 231, 232, 233 or History 237, 238, 239 is prerequisite.

411, 412, 413. *Foreign Policies of the United States.*

DEPARTMENT OF LATIN

Mrs. Dingus, Assistant in Latin

131, 132, 133. *Cicero and Virgil.*

Prerequisite for 131, 132: Two units of high school Latin.

Prerequisite for 133: Three units of high school Latin or their equivalent.

231, 232, 233. *Cicero, Terence and Horace.*

Prerequisite: Latin 131, 132, 133 or four units of high school Latin.

331, 332, 333. *Pliny, Tacitus and Catullus.*

Prerequisite: Latin 231, 232, 233, or their equivalent.

431, 432. *Latin Comedy.*

Prerequisite: Latin 231, 232, 233, or their equivalent.

433. *Private Life of the Romans.*

Open to students of junior rank whether they have enrolled in the Latin Department or not.

No Latin prerequisite.

DEPARTMENT OF MATHEMATICS

Professors Michie and Bishop. Associate Professors Sparks, Underwood. Assistant Professor Thompson. Instructors Heine-
man, Rosen, Langston, Christianson.

L131-2-3. *College Algebra, Trigonometry, and Introduction to Analytic Geometry.*

Prerequisite: Two years of high school algebra and one year of plane geometry.

L134-5-6. *Popular Astronomy.*

Prerequisite: Mathematics L131-2, or its equivalent.

L137-8-9. *Algebra and Trigonometry.*

Prerequisite: One year of high school algebra and one year of plane geometry.

L231-2-3. *Analytic Geometry and College Algebra.*

Prerequisite: Mathematics L131-2-3.

L234-5-6. *Teaching of Arithmetic, Algebra, and Geometry.*

Prerequisite: Mathematics L131-2-3.

L237-8-9. *Mathematics of Finance and Theory of Life Insurance.*

Required of all students of Business Administration in junior year. Business Administration students will receive advanced credit for this course.

Prerequisite: Mathematics L137-8-9.

L330. *Solid Analytic Geometry.*

Prerequisite: Mathematics L231.

L331-2-3. *Elementary Differential and Integral Calculus.*

Prerequisite: Mathematics L231-2-3. However, this course may be taken simultaneously with L231-2-3.

L334-5-6. *Mathematical Statistics.*

Prerequisite: Mathematics L331-2-3.

L337-8-9. *Theory of Equations.*

Prerequisite: Mathematics L331-2-3.

L431-2-3. *Advanced Calculus.*

Prerequisite: Mathematics L331-2-3.

L434-5-6. *Probability.*

Prerequisite: Mathematics L331-2-3.

L437-8-9. *History and Philosophy of Mathematics.*

Prerequisite: Mathematics L231-2-3.

L531-2-3. *Differential Equations and Applications.*

Prerequisite: Mathematics L431-2-3.

L534-5-6. *Higher Algebra.*

Prerequisite: Mathematics L331-2-3, and Mathematics

L337-8-9.

L537-8-9. *Theory of Functions of Real and Complex Variables.*
Given in 1928-1929.

Prerequisite: Mathematics L431-2-3 and consent of instructor.

SCHOOL OF LIBERAL ARTS

E100. *Solid Geometry.*

Required, as an extra study, of freshmen in the School of Engineering who do not have admission credit in solid geometry.

E141. *Algebra and Trigonometry.*

E130 *Trigonometry.*

E131-2. *College Algebra.*

E133. *Introduction to Analytic Geometry.*

E231. *Analytic Geometry.*

E232-3. *Differential and Integral Calculus.*

E331-2. *Applications of the Calculus.*

E333. *Differential Equations.*

SCHOOL OF AGRICULTURE

A131, A132, A133. *Mathematics for Students of Agriculture.*

Given to freshman students in the School of Agriculture.

SCHOOL OF HOME ECONOMICS

All home economics students must take H131 in the winter term or the spring term of the freshman year.

H131. *Mathematics for Students of Home Economics.*

DEPARTMENT OF MUSIC

Professor Waghorne, Instructor LeMaire

Music 001. *Choral Club.*

College Orchestra.

College Band.

For brass, woodwind and percussion players.

Music 110, 111, 112; 210, 211, 212; 310, 311, 312, 410, 411, 412. Piano.

Music 113, 114, 115; 213, 214, 215; 313, 314, 315; 413, 414, 415. Voice.

Music 116, 117, 118; 216, 217, 218; 316, 317, 318; 416, 417, 418. Violin.

Music 131. (*For College Band and Orchestra Players Only*).
Notation, clefs, rythms, scales, and time signatures.

Music 132 (*Continuation of 131*). Intervals, triads, harmonization of scales, etc.

Music 133. Dynamics, terms, sight reading.

134, 135, 136: Notation, terms, Rhythmics, Dynamics, Transposition, Ear-training, etc.

(Prerequisites for Harmony, Counterpoint and Public School Music).

137, 138. (A non-technical course). Music appreciation and history.

234, 235, 236. Harmony and Composition.

334, 335, 336. Harmonic Counterpoint and Composition.

Public School Music.

130. Primary Methods (134-5-6 prerequisite).

230. Intermediate methods (prerequisite, as above plus 234).

330. High school methods (prerequisite, 230).

430. Bands and orchestras.

Music 231 (For Band and Orchestra only.)

Music 232.

Range and technique of band and orchestra instruments.

Music 233.

Key relationship, balance of sections, actual pitch.

Music 331-2-3. (Band and Orchestra).

Technique of the baton.

DEPARTMENT OF PHILOSOPHY AND SOCIOLOGY

Professor Granbery

PHILOSOPHY

231. *Introduction to Philosophy.*

232. *Logic.*

233. *Ethics.*

331, 332, 333. *History of Philosophy.*

334, 335, 336. *Aesthetics.*

431, 432, 433. *Philosophy of Religion.*

SOCIOLOGY

231, 232, 233. *Principles of Sociology.*

331, 332, 333. *Rural Sociology and Urban Problems.*

334, 335, 336. *Social Pathology.*

- 337, 338, 339. *History of Social Thought.*
431, 432, 433. *Social Problems.*
434, 435, 436. *Modern Social Prophets.*
437, 438, 439. *Race Problems.*
211, 212, 213. *The Social Program of the Church.*

PHYSICAL EDUCATION FOR MEN

MILITARY TRAINING

Two years of basic military training are offered. The first year covers Infantry, Close Order Drill, Command and Leadership, Military Courtesy, Military Hygiene and First Aid, and Physical Drill. The second year covers Infantry, Close Order Drill, Scouting and Patrolling, Musketry, Interior Guard Duty, Map Reading and Map Making. Uniforms are worn.

The course in Military Training parallels the course prescribed by the government in its schedule of instruction for Infantry Reserve Officers Training Corps.

PHYSICAL TRAINING

Two courses in Physical Training or Military Training are prerequisite to graduation. Athletic games, calisthenics and corrective exercises are offered. Students are encouraged in any line of activity in which they are interested. Intramural sports continue throughout the year. A special course is offered those students who are not able physically to take part in competitive games. Gymnasium suits and shoes are to be provided by the student.

PHYSICAL EDUCATION FOR WOMEN

101. *First-Year Physical Education for Women.*
201. *Advanced Gymnastics, Elementary Nutrition and Playground Supervision.*
Prerequisite: Physical Education-101.
301. *Natural Dancing.*

Prerequisite: Physical Education 101 and Physical Education 201.

Sports Offered Under Women's Athletic Association:
Basketball, baseball, tennis, hiking, swimming, volley ball, and horseback riding.

DEPARTMENT OF PHYSICS

Professors George, Mast, Abbitt. Associate Professors Hill,
Schmidt

141, 142, 143. *General Physics.*

Required of all pre-medics.

144, 145. *General Engineering Physics.*

Prerequisite: Trigonometry.

241, 242, 243. *General Engineering Physics.*

244, 245. *General Agricultural Physics.*

237. *Practical Photography.*

246. *Elementary Radio Communication.*

Prerequisite: General Physics.

334, 335. *Physics for Students of Home Economics.*

341. *Elementary Light.*

Prerequisites: General physics and trigonometry.

336, 337. *Advanced Practical Light.*

Prerequisites: General Physics and calculus.

338, 339. *Electricity and Magnetism.*

Prerequisite: General physics.

321. *Laboratory Physics.*

331, 332. *Electrical Measurements.*

Prerequisites: General physics and calculus.

324, 325, 326. *Problems in Physics.*

Prerequisite: Physics 141-2-3 or Engineering Physics.

No laboratory fee required.

342. *Practical Mechanics.*

334. *Heat.* (Fall Term).

Prerequisites: General physics and calculus.

343. *Radio Communication.*

Prerequisites: General physics and calculus.

443. *Elementary Electron Theory.*

Prerequisites: Physics 331, 332 or 338, 339, or a course in radio, and calculus.

421, 422, 423. *Theoretical Mechanics.*

Prerequisites: Physics 342, or equivalent, and Calculus,

533, 534, 535. *Mathematical Theory of Light.*

Prerequisites: Physics 336, 337 or Physics 341 and integral calculus.

531, 532. *Introduction to Theoretical Physics.*

Prerequisite: Two courses in physics and integral calculus.

FEES

The fees for the courses in the Department of Physics are as follows: Physics 341, 336, 337, 321, 331, 332, 342, and 334, \$2.00; Physics 246, 343, \$2.50; Physics 144-5, 244-5, 237, 334-5, \$3.00; Physics 141-2-3, 241-2-3, \$4.00.

DEPARTMENT OF PUBLIC SPEAKING AND EXPRESSION

Professors Pirtle, Pendleton. Instructor Cox

131, 132. *Principles of Speech.*

133. *Voice and Diction.*

134, 135, 136. *Argumentation and Debate.*

031, 032, 033. *Technique of Dramatic Art.*

231, 232. *Oratory.*

Prerequisite: Public Speaking 131, 132.

233. *Technique of Reading.*

Prerequisite: Public Speaking 133.

234, 235, 236. *Stagecraft and Direction.*

331, 332. *Oratory (Advanced).*

Prerequisite: Public Speaking 131, 132, 231.

333. *Advanced Argumentation.*

334. *Phonetics.*

431. *Teachers' Course.*

EXPRESSION

131, 132, 133. *Private and Class Work and Body Training Program.*

231, 232, 233. A continuation of Expression 131.

Prerequisite: Expression 131, 132, 133.

331, 332, 333.

Prerequisites: Expression 131, 132, 133, 231, 232, 233.

DEPARTMENT OF SPANISH

Professor W. A. Whatley, Associate Professor F. Whatley,
Assistant Professor Henninger, Instructor Gates.

131, 132, 133. *For Beginners.*

231, 232, 233. *Grammar, Reading, Composition, and Conversation.*

Prerequisite: Spanish 131, 132, 133, or two units of high school Spanish.

331, 332, 333. *Contemporary Literature.*

Prerequisite: Spanish 131, 132, 133, and 231, 232, and 233, or three or four units of high school Spanish.

334, 335, 336. *Commercial Spanish.*

Prerequisite: Same as for Contemporary Literature.

ADVANCED COURSES

For Undergraduates and Graduates

431, 432, 433. *The Modern Novel.*

Prerequisite: Spanish 331, 332, 333, or its equivalent.

531, 532, 533. *Modern Drama.*

Prerequisite: Spanish 331, 332, 333, or its equivalent.
(Given in alternate years; given in 1928-29).

631, 632, 633. *A Survey of Spanish Literature.*

DEPARTMENT OF EXTENSION

J. F. McDONALD, Director

The College is not limiting its teaching activities to the campus but is serving a large constituency, who cannot attend for classroom instruction, through the Department of Extension. The work includes correspondence instruction, and extension class instruction in centers away from the campus. The purposes of the extension service are: to make possible college work for those who are working toward a degree or a teacher's certificate; to prepare for college entrance; to remove deficiencies of college entrance; to render available certain subjects for resident students; and to serve any person who desires college instruction for purely cultural purposes, whether he can meet college entrance requirements or not. Subjects are now available in agriculture, economics and business administration, education, English, journalism, French, German, government, history, home economics, Latin, mathematics, music, psychology, and Spanish. Students may enroll at any time. Inquiries addressed to the Department of Extension of the Texas Technological College, Lubbock, Texas, will receive prompt attention.

CORRESPONDENCE INSTRUCTION

The registration fee required for each correspondence course is \$10.00. A correspondence course is one-third of a regular college course; and yields three term-hours credit. The fees are payable in advance and are not refunded. Students are required to send postage for the return of their written work.

Text-books may be obtained from the Tech Bookstore, Lubbock; or from the publishers; or from local dealers. The money for books should not be sent to the Department of Extension but should be sent directly to the Bookstore, if ordered from that source. A deposit of one dollar will secure the books C. O. D.

The maximum time allowed for the completion of a correspondence course is twelve months; the minimum time required is thirty days. Within these limits the student may set his own pace. But it is usually advisable for the student to distribute his work over a period of two or three months. He is required to do an amount of work equivalent to the amount of work required of a resident student for the same course.

Work of college grade which is done by correspondence students, who have enrolled for college credits, is granted the same credit as the equivalent work which is done by resident students. These credits may be used for a degree; or they may be used for a teacher's certificate; or they may be used to remove deficiencies of college entrance. But not over one-fourth of the work required for a degree, nor over two-fifths of the work required

for a certificate may be earned by correspondence study. The high school correspondence courses, when satisfactorily completed, will be accepted as entrance credits by the College.

STANDARDS OF INSTRUCTION

The standards of instruction are safeguarded by the fact that all courses are given by the regular instructors of the College, under the supervision of the heads of the departments concerned; and by the further fact that the College is a member of the Texas Collegiate Extension Association, and maintains even more rigid requirements than are set by the Association.

COURSES OF INSTRUCTION OFFERED BY CORRESPONDENCE

Agricultural Economics and Farm Management.

- 332. Principles of Agricultural Marketing.
- 333. Cooperative Marketing.
- 334. Agricultural Statistics.
- 335. Rural Life and Organization.
- 431. Land Economics.

Agronomy.

- 241. The Fundamentals of Crop Production.*
- 331. Forage Crops.*
- 335. Soils, Principles.

Animal Husbandry.

- 131. Types, Market Classes, and Breeds of Beef Cattle and Sheep.**
- 132. Types, Market Classes, and Breeds of Hogs and Horses.**
- 133. Types and Breeds of Dairy and Dual-Purpose Cattle.**
- 231. Farm Poultry.**
- 232. Development of Breeds of Live Stock.
- 341. Animal Nutrition.
- 342. Animal Nutrition and Live Stock Feeding.

Dairy Products and Manufactures.

- 231. Principles of Dairying (1).
- 330. The Farm Dairy (1).
- 331, 332, 333. Market Milk (1).
- 335. Butter Making (1).
- 323. Butter Making.*

Horticulture.

- 241. Plant Propagation (1).
- 232. Vegetable Gardening (1).
- 331. Grapes and Small Fruits (1).
- 434. Citriculture.
- 337. Landscape Appreciation.

In courses marked thus (*) laboratory equipment is required; in courses marked thus (**) the laboratory work must be done in the College; and in courses marked thus (1) access to equipment is necessary. In each instance the instructor of the course chosen will advise the student as to the necessary equipment.

Students who cannot meet the full requirements of these courses but who show evidence that they can profit by them, may enroll for work in them, as non-credit courses.

Economics and Business Administration.

- 231, 232, 233. Introduction to Economics.
- A234, A235, A236. Introduction to Accounting.
- F321, F322, F323. Money and Banking.
- F337, F338, F339. Administration of Finance.
- A331, A332, A333. Corporation Accounting and Budgetary Control.
- L334, L335. Business Law.
- 331, 332, 333. Introduction to Business Administration.
- P331, P332, P333. Industrial Management.
- M331, M332, M333. Market Administration.

Education.

- 131. Introduction to Education.
- 132. Classroom Organization and Control.
- 133. Methods of Teaching in the Elementary Grades.
- 230. Rural Education.
- 232. History of Education.
- 233. Measurement of Education.
- 234. Principles of Secondary Education.
- 235. The High School Curriculum.
- 236. Methods of Teaching in the High School.
- 331. Principles of Education.
- 332. High School Problems.
- 335. The Junior High School.
- 337. Classroom Tests.
- 338. How to Study and Work Effectively.
- 339. The Problem-Project Methods.
- 432. Texas Educational System.
- 434. Education in the United States.
- 436. Public School Administration.

Freshman English.

- 131. Composition and Rhetoric.
- 132. Composition and Rhetoric.
- 133. Composition and Rhetoric.

Sophomore English.

- 231. A Study of Narrative Poetry.
- 232. The Drama Considered in Historical Outline.

233. A Consideration of the Themes and Forms of Lyrical Poetry.

Journalism.

135. Special Feature Articles.
237. Management of the Newspaper.
238. Editorial Writing.
239. History of American Journalism.

Advanced Courses in English.

331. Contemporary English Poetry.
334-5-6. American Drama.
338-9. Major American Poets.
432. Shakespeare and the background.
433. Shakespeare Criticism.
530. American Short Story.
438. Browning.
439. Contemporary Drama, Ibsen to Shaw.
532. Types of English and Foreign Fiction.
533. Current English and European Fiction.

French—First, Second and Third Years.

- 131, 132, 133. Beginners' French.
231, 232, 233. Grammar, Reading, and Composition.
331, 332, 333. Novels, Plays, Short Stories, and Composition.

German—First, Second, and Third Years.

- 131, 132, 133. Beginners' German.
231, 232, 233. Grammar, Reading, and Composition.
331, 332, 333. Standard Texts, Readings, and Composition.

Government.

- 131, 132, 133. American Government.
220. Parliamentary Law.
234. Introduction to Political Science.
235, 236. Modern Governments.
330. Business Law.
334. Municipal Government.
335, 336. Political Parties.

History—Freshman, Sophomore.

- 131, 132, 133. History of Civilization.
231, 232, 233. History of the United States.
234, 235, 236. History of England and the British Empire.
237, 238, 239. History of the Two Americas.

Clothing, Education, and General Home Economics.

133. Elementary Textiles.
332. Children's Clothing.
H331. Child Care.
431. Family Relationships.

Latin—Two Years.

- 131, 132, 133. Reading Course in Cicero and Virgil.
- 231, 232, 233. Reading Course in Cicero's Philosophic Essays, Terence, and Horace.

Mathematics.

- E100. Solid Geometry.
- L131. College Algebra.
- L132. Plane Trigonometry.
- L133. Beginners' Analytics.
- L231. Conic Sections.
- L232. Advanced College Algebra.
- L233. Advanced College Algebra.

Music.

- 134. Science of Music Notation, Rhythmics, Tones, etc.
- 135. Elementary Harmony.
- 136. Harmonic Counterpoint.

Psychology.

- 230. Introduction to Psychology.
- 231. Educational Psychology.
- 331. Child Psychology.
- 335. The Psychology of Adolescence.
- 131, 132, 133. Beginners' Spanish.
- 231, 232, 233. Grammar, Reading, and Composition.
- 331, 332, 333. Contemporary Literature.

EXTENSION CLASS INSTRUCTION

Extension classes will be organized in centers, where a sufficient number of persons, who desire this service, request the organization. For the establishment of centers near the College, a minimum of sixteen students will be required; for centers more remote, a larger number, depending upon the distance. Those interested in securing such centers should communicate with the Director of Extension, who will advise as to the steps necessary to secure the center.

The fee required for extension class instruction is \$10.00 per student per class for a term of twelve weeks, the class meeting twice a week for one and one-half hours or once a week for three hours. At centers not near the College the meetings will necessarily be once a week, and at night or on Saturdays.

CREDITS

The credits granted for extension class work are the same as credits granted for class work in the College; that is, one-third of a college course for the term's work. The credits are counted as full college credits, and are accepted for degree or certificate purposes, or for both purposes. Also a maximum of one course

may be applied to reduce the minimum resident requirement of nine months for graduation, thus saving six weeks from this resident requirement.

COURSES OFFERED BY EXTENSION CLASS

1. *Economics and Business Administration*: Any course offered by this Department, for which there is sufficient demand. See "Department of Economics."

2. *Education*: Any undergraduate course in education. For list of these courses see the "Department of Education and Psychology," in this catalog.

3. *English*: 231-2-3, Survey of English Literature. 331, Contemporary English Poetry. 332, History of the English Language. 336, Advanced Grammar. 338-9, Major American Poets. 432-3-4, The Works of Shakespeare. 435, English and Foreign Fiction. 438, Browning. 439, Contemporary Drama, Ibsen to Shaw.

4. *Government*: Any undergraduate course in government. For list of these courses, see the "Department of Government" in this catalog.

5. *History*: 131, 132, 133, History of Civilization. 231, 232, 233, History of the United States. 234, 235, 236, History of England and the British Empire. 237, 238, 239, History of the Two Americas.

6. *Home Economics*: Clothing 133, Elementary Textiles. 332, Children's Clothing. Education H331, Child Care. Home Economics 431, Family Relationships.

7. *Mathematics*: E100, Solid Geometry. L131a, College Algebra. L131b, Plane Trigonometry. L131c, Beginner's Analytics.

FURTHER INFORMATION

For further information in regard to correspondence courses or extension class courses, write J. F. McDonald, Director of Extension.

VOLUNTARY GROUP MEETINGS

These are Optional Non-credit Courses for any student in Tech.

1. *Leadership of Boys' Groups.*

Lectures on the Theory of Boys' Work. In addition to this actual field practice will take you into many types of Boys' Work. The Gang will be studied in detail. College men should be able to become valuable leaders in any community as a result of this course.

Once a week; hour to be determined by the Group.

First meeting October 12, 5 p. m., Room 308.

Roy McCullough, *Director*.

II. *Personal Problem Group.*

If you have personal problems, or wish to learn a method of helping others solve them, this group should interest you. Some of the categories into which these problems fall are: Religion, health, finances, morals, etc.

Once a week; hour to be determined by group.

First meeting October 15, 5 p. m., Room 308.

Roy McCullough, *Convener*.

III. *Bible Study.*

The Book of Mark will be studied in order to discover the attitudes, habits, mind and spirit of Jesus. A method of Bible Study will be taught in order that you may study other sections of the Bible on your own initiative. This course will fit you for Bible Study Leadership.

Once a week; hour to be determined by the group.

First meeting October 16, 5 p. m., Room 308.

Roy McCullough, *Leader*.

If you are interested in any of these non-credit courses please see Mr. McCullough or Hal Lary in Room 308, any day from 10 to 12 a. m., or 2 to 4 p. m.; or Mary Hope Westbrook in the Registrar's Office.

SCHOOL OF AGRICULTURE

ARTHUR H. LEIDIGH, Dean

Texas in general, and Western Texas almost exclusively, depends upon agriculture for a livelihood. The availability of instruction in those subjects which have to do with sane, practical agriculture is fundamental to the prosperity and continued development in a State whose principal industries, even aside from agriculture, are in general dependent upon agriculture.

The purpose of the courses of study outlined herewith is to meet the needs of those who desire to prepare themselves for service and life in some part of the agricultural organization of this country as a whole.

The scientific and technical subjects studied are fundamental. In the latter years of the student's work, the scientific and agricultural subjects have both a more specific application to agriculture, and a more fundamental bearing on certain special lines of work which the student may desire to pursue as a life work.

EQUIPMENT

One aim of education is that it be productive. In agriculture the laboratory method of instruction is given very great emphasis. Here the laboratories are both in and out of doors. Foundation herds of livestock are available for the use of the students. The School of Agriculture is equipped with a farm comprising approximately 700 acres of pasture land and 964 acres of farm lands, including small pastures, making a total of approximately 1,664 acres. In addition to the farm the campus proper covers 320 acres, which is available for demonstration and instructional purposes especially in some branches of horticulture.

The equipment devoted to Agriculture has an inventory value of approximately \$220,000. Part of the farm land is devoted to the maintenance of livestock used for class work. The balance of the land is being developed as rapidly as possible for instructional purposes, pending which time part of it is leased. Equipment and farm tools are available and are selected to serve also for the purpose of instruction.

BUILDINGS

The Agricultural unit of the College is located southwest of the Administration Building. The buildings of the group thus far completed, consist of the Agricultural Building, the Stock Judging Pavilion, the Greenhouse and the Dairy Barn. These buildings are of permanent construction and so planned that they may be added to as the occasion may demand.

SERVICE

The aim and purpose of the School of Agriculture is to offer instruction of college grade. This work is available to all students in the college whether they major in the School of Agriculture or in one of the other Schools. No regularly scheduled elementary work is offered. It is desired that the agricultural equipment serve the greatest number of people and to that end contests for Vocational Agricultural students and Boys' Club members, short courses and informational demonstrations of one or two days each are conducted. County agents, teachers and farmers desiring such service should submit their application well in advance to the Dean of the School of Agriculture.

SHORT COURSES

Numerous requests have been received for special short courses in Agriculture. It is planned to offer a three day Farmers Short Course about the latter part of January, 1929. The Department of Dairy Products and Manufactures will offer three one-week short courses during the winter Quarter 1928-1929, dealing with Butter, Ice Cream and Market Milk. Definite arrangements as to the dates of these short courses have not been made at the present time. For further information address the Dean, School of Agriculture.

FIELD FOR GRADUATES

There is a constant demand for men trained in specialized lines of agriculture as well as for men to enter professions wherein a basic agricultural education is required. The School of Agriculture will assist its graduates in securing employment if desired. Among the lines of work usually open to graduates are the following positions:

Farmers and farm managers; marketing agents; managers of co-operative associations; teachers in colleges, academies and high schools; extension experts in agricultural colleges, railroads and land companies; dairy and creamery experts or operators; government and experiment station lines of research work; horticultural experts; poultry experts; feed inspecting, etc.; county agents; assistants in seed houses agricultural writing for farm journals; plant pathologists; entomologists trained in agriculture; landscape architects; agricultural engineers, and farm machinery specialists.

ADMISSION

Graduates of accredited high schools presenting a minimum of 15 units, will be admitted to the Freshman class without examination.

The units acceptable to meet the entrance requirements are:

1. English ----- 3 units

2. Mathematics:

Algebra ----- 1 unit

Plane Geometry ----- 1 unit

And ten units selected from the following:

3. Social Sciences, such as:

History, civics, economics, sociology,
etc., two units if only one is se-
lected in group four, but if two
are selected in group four, then
one unit from group three--2 or 1 unit

4. Science, such as:

Botany, zoology, chemistry, physics,
geology, general science, physi-
ology, etc., two units if one only
is selected in group three, but if
two are selected in group three,
then one unit in group four--1 or 2 units

5. Any other standard units, but not more

than four can be vocational sub-
jects ----- 7 units

Total ----- 15 units

The regulations for individual approval of students over twenty-one years old are the same for the college as a whole.

MAJOR LINES OF WORK

Specialized courses of study are offered in Animal Husbandry, Agronomy, Horticulture, Agricultural Economics and in Dairy Products and Manufactures. While the curricula as scheduled are believed to be sufficient to cover the needs of the average student, it is possible to combine various portions of the work of two or more of them so that an even more specialized preparation may be secured. In special cases permission will be granted to combine the work of two or more departments. For those who are not certain what particular branch of the profession they will follow, it is advised that the general courses be adhered to. Substitutions and combination will be permitted only when there is good evidence that the student desiring such work is practically certain to follow the branch selected. In any case where modifications are granted, the degree will be based on the course in which the major part of the work was taken. Substitution of technical work for the required general cultural work in the course will not be permitted.

SUBSTITUTION FOR FAILURE IN REQUIRED WORK

A student who has a failing grade on his record in any required subject of the course must remove this grade by satisfactory repetition of the work or be allowed to substitute other work by the faculty of the School of Agriculture before he will be graduated. If this failing grade is in a subject which is a prerequisite to other studies, this grade must be removed before the latter course may be attempted.

TRIPS AND JUDGING TEAMS

In recognition of the value of broader contacts and to secure a view of major parts of the Agricultural industry, trips of inspection and inter-collegiate judging contests are advised for advanced students and every assistance offered to make such trips worth while. Such trips are not required and the College does not pay the expenses of the students. In the case of judging teams, the staff members coach and train the teams outside of regular classes throughout the year to supplement class instruction.

INSTRUCTION BY CORRESPONDENCE

A limited number of subjects in the Agricultural curricula are open for full or partial credit by correspondence. The general management of such instruction is treated in detail in another part of this catalog under Department of Extension. In those cases where the student may carry out the experiments and practice away from the college, the laboratory material, supplies, etc., are to be provided at student's expense and can usually be secured from the Department concerned. Such laboratory expenses are in addition to the correspondence fee. The examinations will be held at the College.

NON-COLLEGE CREDIT CORRESPONDENCE INSTRUCTION

Non-college credit instruction is open to students irrespective of the prerequisites or laboratory requirements, provided it is clearly understood at the time of registration that credit toward a degree is not desired. Such instruction is specifically offered to a limited number of farmers and others who are seriously seeking knowledge in their calling but who do not desire to cover the entire list of subjects required for graduation. The general procedure for securing such instruction is the same as for the regular credit correspondence courses.

DEGREES

The degree of Bachelor of Science in Agriculture will be conferred upon completion of the prescribed courses in the School of Agriculture. The degree is given with majors in Agronomy, Animal Husbandry, Horticulture, Agricultural Economics and Dairy Products and Manufactures.

STATEMENT OF COURSES OF STUDY

UNIFORM FRESHMAN YEAR

All agricultural students are required to take a uniform course of study in their freshman year. This is to allow the student to become familiar with the courses of instruction and to decide fully as to his qualifications before making election of specific majors.

CURRICULUM FOR STUDENTS IN AGRICULTURE

	Credit Hours		
	Fall	Winter	Spring
Uniform Freshman Year			
Animal Husbandry 131—Types, Market Classes and Breeds of Beef Cattle and Sheep	3		
Animal Husbandry 132—Types, Market Classes and Breeds of Hogs and Horses		3	
Animal Husbandry 133—Types and Breeds of Dairy and Dual-purpose cattle			3
D. P. & Mfg. 131—Principles of Dairying	3		
Hort. 141—Principles of Plant Propagation		4	
Agron. 141—Fundamentals of Crop Production			4
Bot. 131, 132, 133—General Botany			
Math. A-131-2-3—Agricultural Mathematics	3	3	3
English 131-2-3	3	3	3
General Agriculture 1($\frac{1}{8}$)1, 1($\frac{1}{8}$)2, 1($\frac{1}{8}$)3—Agricultural Lectures	3	3	3
Military Training of Physical Training 111, 112, 113	$\frac{1}{2}$ 1	$\frac{1}{2}$ 1	$\frac{1}{2}$ 1
	16 $\frac{1}{2}$	17 $\frac{1}{2}$	17 $\frac{1}{2}$

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
Ag. Eco. 231—Agcl. Geography and Resources.....		3	
A. H. 231—Farm Poultry.....			3*
Hort. 233—Vegetable Gardening.....			3*
Draw. 124—Agcl. Drawing.....	2		
Eco. 231, 232, 233—Introduction to Economics.....	3	3	3
Eng. A231-2.....	3	3	3
Chem. 141, 142, 143—Elementary General Chemistry.....	4	4	4
Zool. 234, 235—Agcl. Zoology*.....	3*	3*	
Zool. 236—Introduction to Entomology*.....			3*
Phys. 244, 245—Agcl. Physics*.....	4*	4*	
MT. or PT. 211, 212, 213—Military Training or Physical Training.....	1	1	1
*The Zoology and the Physics are not required if entrance credits in these subjects are presented. Otherwise one is to be taken. When Zoology is chosen either A. H. 231 or Hort. 233 is required, both are required if Physics is chosen.			
	17*	18*	17*
Junior Year			
Ag. Eco. 331—Principles of Agricultural Economics.....	3		
Ag. Eco. 332—Principles of Agricultural Marketing.....		3	
Ag. Eco. 333—Co-operative Marketing.....			3
Ag. Eco. 334—Agricultural Statistics.....	3		
Ag. Eco. 335—Farm Records and Accounts.....		3	
Ag. Eco. 336—Rural Life and Organizations.....			3
Agron. 331—Forage Crops.....	3		
Gen. 331, 332—Principles of Genetics.....		3	3
A. H. 342—Livestock Feeding.....			4
Supervised Electives.....	6	6	6
	15	15	16
Senior Year			
Ag. Eco. 411, 412, 413—Ag. Economics Seminar.....	1	1	1
Ag. Eco. 431—Land Economics.....	3		
Ag. Eco. 432—Farm Management.....		3	
Ag. Eco. 433—Agricultural Prices and Forecasting.....			3
Ag. Eco. 434—Farmer Movements.....	3		
Ag. Eco. 435—Farm Finance.....		3	
Ag. Eco. 437—Advanced Ag. Economics.....			3
Gen. Agcl. 411—General Agricultural Lectures.....			1
Supervised Electives.....	9	9	9
	16	16	17

AGRONOMY MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
Agron. 223—Cotton Classing and Grading		2	
Hort. 233—Vegetable Gardening			3
A. H. 231—Farm Poultry*			3*
Draw. 124—Agcl. Drawing	2		
Eco. 231, 232, 233—Introduction to Economics	3	3	3
Eng. A231-2	3	3	
P. S. 131—Public Speaking			3
Chem. 141, 142, 143—Elementary General Chemistry	4	4	4
Zool. 234, 235—Agcl. Zoology*	3*	3*	
Zool. 236—Introduction to Entomology*			3*
Phys. 244, 245—Agcl. Physics*	4*	4*	
MT. or PT. 211, 212, 213—Military Training or Physical Training	1	1	1
Note:—The Zoology and the Physics are not required if entrance credits in these subjects were presented. Otherwise one is to be taken. When Physics is chosen the A. H. 231 should fill out the year.	17	17*	17
Junior Year			
Agron. 331—Forage Crops	3		
Agron. 333—Cotton and Other Fiber Crops		3	
Agron. 335—Principles of Soils			3
Agron. 339—Crop Plant Diseases and Insects and Their Control		3	
Gen. 331, 332—Principles of Genetics		3	3
A. H. 342—Livestock Feeding			4
Ag. Eco. 332—Principles of Agricultural Marketing		3	
Ag. Eco. 333—Cooperative Marketing			3
Ag. Eco. 334—Agricultural Statistics	3		
Bot. 233—Taxonomy			3
Bact. 231—Principles of Bacteriology	3		
L. A. 334—Mapping and Topography	3		
Supervised Electives	3	3	
	15	15	16
Senior Year			
Agron. 411, 412—Agronomy Seminar		1	1
Agron. 431—Grain Crops	3		
Agron. 432—Advanced Crop Judging and Grading*	3		
Agron. 433—Soil Fertility		3	
Agron. 434—Principles of Irrigation			3
Agron. 437—Pasture Management		3	
Agron. 435—Dry Farming	3		
Agron. 436—Soil Survey and Terracing			3
Ag. Eco. 431—Land Economics	3		
Ag. Eco. 432—Farm Management		3	
Ag. Eco. 433—Agricultural Prices and Forecasting			3
Genl. Agcl. 411—General Agriculture Lectures			1
Supervised Electives	3	6	6
*Note:—A supervised Elective may be substituted for this subject.	15	16	17

ANIMAL HUSBANDRY MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
A. H. 231—Farm Poultry			3
A. H. 232—Development of Breeds of Livestock		3	
Hort. 233—Vegetable Gardening			3
Draw. 124—Agricultural Drawing	2		
Eco. 231, 232, 233—Introduction to Economics	3	3	3
Eng. A231-2	3	3	
P.S. 131—Public Speaking			3
Chem. 141, 142, 143—Elementary General Chemistry	4	4	4
Phys. 244, 245—Agricultural Physics*	4*	4*	
MT. or PT. 211, 212, 213—Military Training of Physical Training	1	1	1
*Note:—The Physics is not required if entrance credits in this subject were presented.	17	18	17
Junior Year			
A. H. 341—Animal Nutrition			4
Vet. 331—Anatomy of Domestic Animals	3		
Vet. 332—Comparative Physiology		3	
Vet. 333—Livestock Diseases, Parasites and Sanitation			3
Gen. 331, 332—Principles of Genetics		3	3
Agron. 331—Forage Crops	3		
Ag. Eco. 334—Agricultural Statistics	3		
Ag. Eco. 332—Principles of Agricultural Marketing		3	
Ag. Eco. 335—Farm Records and Accounts			3
Chem. 331, 332—Agricultural Organic Chemistry	3	3	
Supervised Electives	3	3	3
	15	15	16
Senior Year			
A. H. 411, 412—A. H. Seminar		1	1
Animal Husbandry 431—Beef Production**	3		
Animal Husbandry 432—Horse Production**	3		
Animal Husbandry 433—Sheep Production**		3	
Animal Husbandry 434—Swine Production**		3	
Animal Husbandry 435—Dairy Production**			3
Animal Husbandry 437—Poultry Production**			3
A. H. 436—Farm Meats**		3	
Ag. Eco. 431—Land Economics	3		
Ag. Eco. 432—Farm Management		3	
Ag. Eco. 433—Agricultural Prices and Forecasting			3
Gen. Agcl. 411—General Agricultural Lectures			1
Supervised Electives	6	3	6
	15	16	17

**One of these may be omitted each term and a supervised elective substituted.

DAIRY PRODUCTS AND MANUFACTURES MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
DP. 232—Dairy Machinery		3	
DP. 233—Cheese Making			3
A. H. 231—Farm Poultry			3
Eco. 231, 232, 233—Introduction to Economics	3	3	3
Eng. A231-2	3	3	
PS. 131—Public Speaking			3
Chem. 141, 142, 143—Elementary General Chemistry	4	4	4
Bact. 231—Principles of Bacteriology	3		
Phys. 244, 245—Agcl. Physics	4	4	
PT. or MT. 211, 212, 213—Physical Training or Military Training	1	1	1
	18	18	17
Junior Year			
DP. 311, 312, 313—Scoring of Dairy Products	1	1	1
DP. 331, 332, 333—Market Milk	3	3	3
DP. 323—Butter Making Laboratory			2
DP. 335—Butter Making			3
DP. 336—Sanitary Control of Dairy Products	3		
Ag. Eco. 334—Agricultural Statistics	3		
Ag. Eco. 332—Principles of Agricultural Marketing		3	
Ag. Eco. 333—Cooperative Marketing			3
Agron. 331—Forage Crops	3		
Gen. 331—Principles of Genetics		3	
A. H. 342—Livestock Feeding			4
Chem. 331, 332—Agcl. Organic Chemistry	3	3	
Elective		3	
	16	16	16
Senior Year			
DP. 411—Seminar			1
DP. 441, 442—Ice Cream Making			
DP. 432—Laboratory Control of Dairy Products	4	4	
DP. 431—Dairy Products Merchandising	3		
DP. 421—Dairy Technology		3	
DP. 443—Management of Dairy Plants			2
Gen. Agcl. 411—General Agriculture Lectures			4
Supervised Elective			1
	9	9	9
	16	16	17

HORTICULTURE MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
Hort. 239—Floriculture		3	
Hort. 233—Vegetable Gardening			3
Draw. 124—Agcl. Drawing	2		
Eco. 231, 232, 233—Introduction to Economics	3	3	3
Eng. A231-2	3	3	
P. S. 131—Public Speaking			3
Chem. 141, 142, 143—Elementary General Chemistry	4	4	4
Zool. 234, 235—Agcl. Zoology*	3*	3*	
Zool. 236, Introduction to Entomology*			3*
Phys. 244, 245—Agcl. Physics*	4*	4*	
A. H. 231—Farm Poultry*			3*
MT. or PT. 211, 212, 213—Military Training or Physical Training	1	1	1
Note:—The Zoology and the Physics are not required if entrance credits in these subjects were presented. Otherwise one is to be taken. When Physics is chosen the A. H. 231 should fill out the year.	17	18*	17*
Junior Year			
Hort. 341—Orcharding	4		
Hort. 332—Pruning and Spraying		3	
Hort. 439—Orchard Diseases and Insects and Their Control—		3	
L. A. 334—Mapping and Topography	3		
Gen. 331, 332—Principles of Genetics		3	3
A. H. 342—Livestock Feeding			4
Agron. 331—Forage Crops	3		
Agron. 335—Principles of Soils			3
Ag. Eco. 332—Principles of Agricultural Marketing		3	
Ag. Eco. 333—Cooperative Marketing			3
Ag. Eco. 334—Agricultural Statistics	3		
Supervised Electives	3	3	3
	16	15	16
Senior Year			
Hort. 411, 412—Seminar		1	1
Hort. 435, 436, 437—Advanced Pomology	3	3	3
Hort. 449—Systematic Pomology	4		
Hort. 433—Citriculture			3
Hort. 331—Grapes and Small Fruits		3	
Ag. Economic Electives	3	3	3
Gen. Agcl. 411—General Agriculture Lectures			1
Supervised Electives	6	6	6
	16	16	17

LANDSCAPE ARCHITECTURE MAJOR

	Credit Hours		
	Fall	Winter	Spring
Sophomore Year			
L. A. 239—Landscape Perspective.....		3	
Hort. 239—Floriculture.....		3	
Hort. 233—Vegetable Gardening.....			3
Bot. 233—Taxonomy.....			3
Draw. 124—Agcl. Drawing.....	2		
Arch. 121, 122, 123—Freehand Drawing.....	2	2	2
C. E. 230—Surveying.....	3		
Gov. 231, 232, 233—Local Government and Political Parties.....	3	3	3
Eng. A231-2.....	3	3	
PS. 131—Public Speaking.....			3
Math. E130—Trigonometry.....	3		
MT. or PT. 211, 212, 213—Military Training or Physical Training.....	1	1	1
	17	15	15
Junior Year			
Hort. 321, 322, 323—Ornamentals.....	2	2	2
L. A. 331, 332, 333—Introduction to Landscape Architecture.....	3	3	3
L. A. 334—Mapping and Topography.....	3		
L. A. 335, 336—Landscape Construction.....		3	
Agron. 335—Soll, Principles.....			3
Agron. 330—Grasses.....		3	
Eco. 231, 232, 233—Introduction to Economics.....	3	3	3
Supervised Electives.....	4	3	4
	15	17	15
Senior Year			
Hort. 411, 412—Seminar.....		1	1
L. A. 431, 432, 433—Advanced Design.....	3	3	3
L. A. 435, 436—Planting Design.....		3	3
L. A. 429—Landscape Architecture Office Practice.....			2
L. A. 437, 438—City Planning.....		3	3
Hort. 421—Care of Plant Materials.....	2		
Gov. 330—Business Law.....	3		
Gov. 220—Parliamentary Law.....	2		
Hort. Electives.....	3	3	
Gen. Agcl. 411—General Agriculture Lectures.....			1
Supervised Electives.....	3	3	3
	16	16	16

GENERAL AGRICULTURE

Those subjects which are not yet definitely assigned to any specific department are classified under General Agriculture, and are under the direct supervision of the Dean of Agriculture.

COURSES OF INSTRUCTION

G. A. 1 $1\frac{1}{3}$ 1, 1

$1\frac{1}{3}$ 2, 1 $1\frac{1}{3}$ 3. *Agriculture Lectures.*

1 lecture.

Required of all freshmen students in Agriculture.

G. A. 411. *Agricultural Lectures.*

Prerequisite: Senior standing in the School of Agriculture.

Required in Agriculture.

Senior year, spring term.

Ag. Ed. 331. *Rural Education* (Spring term). Class 3 hours.

Ag. Ed. 432, 433, 434. *Special Methods and Supervised Teaching of Agriculture.* Class 3 hours.

Ag. Eng 331. *Farm Shop.* 1 hour class. 6 hours laboratory.

Ag. Eng. 434. *Farm Machinery.* 1 hour class. 6 hours laboratory.

Prerequisite: Physics.

DEPARTMENT OF AGRICULTURAL ECONOMICS
AND FARM MANAGEMENT

Professor Ellsworth

The Department of Agricultural Economics and Farm Management applies business principles to Agriculture and trains students who expect to farm how to determine, when to produce, and when to buy and when to sell, and how to increase profits from farming by more intelligent production and marketing. The department also trains men to enter all commercial activities having to do with Agriculture. A wide range of electives is also provided.

COURSES OF INSTRUCTION

231. *Agricultural Geography and Resources.* Class 3 hours.

331. *Principles of Agricultural Economics.* Class 3 hours.

Prerequisite: One year Economics.

332. *Principles of Agricultural Marketing.* Class 3 hours.

Prerequisite: One year Economics.

333. *Cooperative Marketing*. Class 3 hours.
Prerequisite: Agricultural Economics 332.
334. *Agricultural Statistics*. Class 2 hours. Laboratory 3 hours.
Prerequisite: One year Economics.
Laboratory fee: \$1.00.
335. *Farm Records and Accounts*. Class 2 hours. Laboratory 3 hours.
336. *Rural Life and Organizations*. Class 3 hours.
Prerequisite: One year Economics.
- 411, 412, 413. *Agricultural Economics Seminar*. Class 2 hours.
1 credit.
Prerequisite: Two courses in Agricultural Economics.
431. *Land Economics*. Class 3 hours.
Prerequisite: One year Economics.
432. *Farm Management*. Class 2 hours. Laboratory 3 hours.
Prerequisite: One year Economics.
Laboratory fee: \$1.00.
433. *Agricultural Prices and Forecasting*. Class 2 hours. Laboratory 3 hours.
Prerequisites: Agricultural Economics 332, 334, 432.
Laboratory fee: \$1.00.
434. *Farmer Movements in America*. Class 3 hours.
Prerequisite: One year Economics.
435. *Farm Finance*. Class 3 hours.
Prerequisite: One year Economics.
436. *Cotton Marketing*. Class 3 hours.
Prerequisite: Agricultural Economics 332.
437. *Advanced Agricultural Economics*. Class 3 hours. .
Prerequisite: One year Economics.
438. *Agricultural Economics Problems*. Class 3 hours.
Prerequisite: Senior standing.

The following courses can be given by correspondence:

332. *Principles of Agricultural Marketing*.
333. *Cooperative Marketing*.
334. *Agricultural Statistics*.
336. *Rural Life and Organizations*.

DEPARTMENT OF AGRONOMY

Professor Leidigh, Associate Professor Bower.

The Department of Agronomy offers courses designed to provide instruction in cereal and forage crops production, crop inheritance, breeding and improvement, in pasture management, in soils, in soil fertility, soil survey and terracing, dry-land farming and irrigation farming.

In addition to maintaining demonstration plots to illustrate farm operations and practice, a large series of farm crop varieties are being maintained for the purpose of being available for the student as examples of practically all of the material that is feasible to grow in this region. Ample greenhouse space is also provided for problems and research work in crops and soils.

The classes in Agronomy are offered field trips as a part of their instruction, and as the College is located in a highly developed and productive region, these trips are of great assistance to the student.

COURSES OF INSTRUCTION

141. *The Fundamentals of Crop Production*. Class 3 hours.
Laboratory 3 hours.

Prerequisite: Horticulture 141, Botany 131.

Required in Agriculture.

Text: *The Production of Field Crops*, by Hutcheson & Wolfe.

Laboratory fee: \$1.00.

(Note: Students who have approached this subject in high school in Vocational Agriculture will be advanced to suit their need and will not be required unnecessarily to repeat work already covered).

223. *Cotton Classing and Grading*. Class 1 hour. Laboratory 3 hours.

Required in Agronomy. (Winter Term).

330. *Grasses*. Class 3 hours.

Prerequisite: Botany 1 year. Horticulture 141.

Required in Landscape Architecture.

331. *Forage Crops*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Agronomy 141. Botany 1 year.

Required in Agriculture.

Text: *Forage Plants and Their Culture*, by Piper.

Laboratory Fee: \$1.00.

332. *Cotton Production*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Junior standing. (Winter term).

Course offered to Textile Engineering and to Liberal Art students without the prerequisites for Agronomy 333.

Laboratory fee: \$3.00.

333. *Cotton and Other Fiber Crops*. Class 2 hours. Lab. 3 hours.

Prerequisite: Agronomy 141, 223. Botany 1 year.

Laboratory fee: \$2.00.

335. *Soils, Principles*. Class 3 hours.

Prerequisite: One year of chemistry, Agronomy 141.

339. *Crop Plant Diseases and Insects and Their Control*. Class 3 hours.

Prerequisite: Junior standing in Agriculture.

411, 412. *Agronomy Seminar*. Class 1 hour or discussion 2 hours.

Required in Agronomy.

431. *Grain Crops*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Agronomy 141. Genetics 332.

Required in Agronomy.

Text: *The Small Grains*, by Carleton.

Laboratory fee: \$1.00.

432. *Advanced Crop Judging and Grain Grading*. Class 1 hour. Laboratory 6 hours.

Prerequisite: Agronomy 331, 431.

Laboratory fee: \$2.00.

433. *Soil Fertility*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Agronomy 335.

Required in Agronomy.

Laboratory fee: \$2.00.

434. *Irrigation and Drainage*. Class 3 hours. Field trips.

Prerequisite: Surveying or L. A. 334, Agronomy 335. Senior standing.

Required in Agronomy.

435. *Dry Land Farming*. Class 3 hours. Field trips.

Prerequisite: Agronomy 335.

Required in Agronomy.

436. *Soil Survey and Terracing*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Drawing, Surveying or L. A. 334, Agronomy 335.

437. *Pasture Management*. Class 3 hours. Field trips.
Prerequisite: Agronomy 331.
Required in Agronomy.
438. *Cotton and Grain Sorghum Genetics*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Genetics 332. Agronomy 331, 333.
439. *Agronomy Problems*. Class 3 hours.
Prerequisite: Senior standing.
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The following courses can be given by correspondence:

**Agronomy 141*.

**Agronomy 331*.

Agronomy 335.

* Laboratory equipment is necessary.

DEPARTMENT OF ANIMAL HUSBANDRY

Professor Stangel, Associate Professor Mowery, Assistant Professor Harbaugh.

The Department of Animal Husbandry provides instruction designed to train students to select, breed, feed, manage and market farm and ranch animals and poultry. The livestock and poultry, numbering over four hundred and fifty head, include most of the major breeds of beef and dairy cattle, hogs, horses, sheep and poultry, and are maintained and used primarily for class instruction. More livestock are being added as State appropriations become available.

The equipment of the department includes a livestock judging pavilion; a fully equipped modern dairy barn which will house sixty head of stock, and so constructed that it can be added to, thus increasing its capacity to one hundred head as well as including box stalls for cows on test; a concrete silo of one hundred and forty-ton capacity; temporary shelters for cattle and horses; portable houses for hogs; a forty acre plant, fenced and cross fenced, for sheep; a poultry plant covering ten acres, fenced and cross fenced, and on which have been erected twelve production houses.

COURSES OF INSTRUCTION

131. *Types, Market Classes, and Breeds of Beef Cattle and Sheep*. Class 2 hours. Laboratory 4 hours.
*Required in Agriculture.
Texts: *Types and Market Classes of Livestock*, Vaughan;
Types and Breeds of Farm Animals, Plumb.
Laboratory fee: \$1.00.

Animal Husbandry 132. Types, Market Classes, and Breeds of Hogs and Horses. Class 2 hours. Laboratory 4 hours.

*Required in Agriculture.

Texts: Type and Market Classes of Livestock, Vaughan; Types and Breeds of Farm Animals, Plumb.

Laboratory fee: \$1.00.

Animal Husbandry 133. Types and Breeds of Dairy and Dual-Purpose Cattle. Class 2 hours. Laboratory 4 hours.

*Required in Agriculture.

Texts: Types and Market Classes of Livestock, Vaughan. Types and Breeds of Farm Animals, Plumb.

Laboratory fee: \$1.00.

231. *Farm Poultry.* Class 2 hours. Laboratory 3 hours.

Required in Agriculture.

Text: Poultry Production, Lippincott.

Laboratory fee: \$1.00.

232. *Development of Breeds of Livestock.* Class 3 hours.

Prerequisites: Animal Husbandry 131, 132, and 133.

Required in Animal Husbandry.

321. *Incubation.* Class 1 hour. Laboratory 3 hours.

Prerequisite: Animal Husbandry 231.

Laboratory fee: \$2.00.

322. *Brooding.* Class 1 hour. Laboratory 3 hours.

Prerequisite: Animal Husbandry 231.

Laboratory fee: \$2.00.

331. *Advanced Livestock Judging.* Laboratory 9 hours.

Prerequisites: Animal Husbandry 131 and 132. Junior standing.

332. *Advanced Dairy Cattle Judging.* Class 1 hour. Laboratory 6 hours.

Prerequisites: Animal Husbandry 133. Junior standing.

333. *Advanced Poultry Judging.* Class 1 hour. Laboratory 6 hours.

Prerequisite: Animal Husbandry 231.

Text: American Standard of Perfection, American Poultry Association.

341. *Animal Nutrition.* Class 3 hours. Laboratory 3 hours.

Prerequisite: Chemistry 331 and 332.

Required in Animal Husbandry and Dairy Products.

Text: Feeds and Feeding, Henry & Morrison.

Laboratory fee: \$1.00.

*Students who have approached part of Animal Husbandry 131, 132, 133, in High School Vocational Agriculture, will be advanced to suit their needs and will not be required to unnecessarily repeat work already covered.

342. *Livestock Feeding*. Class 3 hours. Laboratory 3 hours.
Prerequisite: Chemistry, 1 year.
Required of all agricultural students except those in Animal Husbandry, Dairy Products and Landscape Architecture.
Text: Feeds and Feeding, Abridged, Henry & Morrison.
Laboratory Fee: \$1.00.
- 411, 412. *Seminar*. Class 1 hour.
Prerequisite: Senior standing.
Required in Animal Husbandry.
431. *Beef Production*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Animal Husbandry 341 and Genetics 332.
Text: Beef Production, Snapp.
Laboratory fee: \$1.00.
432. *Horse Production*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Animal Husbandry 341 and Genetics 332.
Text: Productive Horse Husbandry, Gay.
Laboratory fee: \$1.00.
433. *Sheep Production*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Animal Husbandry 341 and Genetics 332.
Text: Productive Sheep Husbandry, Coffey.
Laboratory Fee: \$1.00.
434. *Swine Production*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Animal Husbandry 341 and Genetics 332.
Text: Swine Production, Smith.
Laboratory fee: \$1.00.
435. *Dairy Production*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Animal Husbandry 341 and Genetics 332.
Text: Dairy Cattle and Milk Production, Eckles.
Laboratory fee: \$1.00.
436. *Farm Meats*. Class 1 hour. Laboratory 6 hours.
Prerequisites: Animal Husbandry 331 and Veterinary Science 331.
Text: Farm Meats, Helser.
Laboratory fee: \$3.00.
437. *Poultry Production*. Class 2 hours. Laboratory 3 hours.
Prerequisites: Animal Husbandry 231, Animal Husbandry 341 and Genetics 332.
Text: Productive Poultry Husbandry, Lewis.
Laboratory fee: \$1.00.
438. *Animal Genetics*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Genetics 332.

439. *Research Problems in Animal Husbandry*. Class 3 hours.
441. *Livestock Managment*. Class 3 hours. Laboratory 3 hours.

Prerequisites: Animal Husbandry 131, 132, 133, and 342; Genetics 332.

Laboratory fee: \$1.00.

VETERINARY SCIENCE

331. *The Anatomy of the Domestic Animals*. Class 2 hours. Laboratory 3 hours.
Required in Animal Husbandry.
Laboratory fee: \$2.00.

332. *Comparative Physiology*. Class 3 hours.
Prerequisite: Veterinary Science 331.
Required in Animal Husbandry.

333. *Livestock Diseases, Parasites and Sanitation*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Veterinary Science 332.
Required in Animal Husbandry.
Laboratory fee: \$1.00.

The following courses can be given by correspondence:

131. *Types, Market Classes, and Breeds of Beef Cattle and Sheep*. (Class work only).
132. *Types, Market Classes and Breeds of Hogs and Horses*. (Class work only).
133. *Types and Breeds of Dairy and Dual-Purpose Cattle*. (Class work only).
231. *Farm Poultry*. (Class work only).
232. *Development of Breeds of Livestock*.
341. *Animal Nutrition*.
342. *Livestock Feeding*.

DEPARTMENT OF DAIRY PRODUCTS AND MANUFACTURES

Associate Professor Renner.

The Department of Dairy Products and Manufactures, in addition to offering a liberal training in the science of Agriculture, is designed to train students to become plant operators, superintendents or managers of milk, butter, cheese or ice cream plants, as well as to give instruction in the fundamentals of dairy practice to students who are not intending to specialize in dairy manufacturing. The department also offers courses designed to

train students for city, state or federal inspectors of dairy products.

Equipment is available for the teaching of fundamental work, and local milk, ice cream and butter plants are available for the practical laboratory work in the courses offered.

The Department maintains a small dairy plant for student instruction. It is equipped to handle market milk, cheese and butter manufacture. In addition to the plant equipment, a dairy laboratory is maintained with sufficient scientific equipment to make various tests on the different dairy products. This department is in a position to make tests for individual citizens of this state at actual costs of performing tests.

Students specializing in this department should have at least six months practical experience before graduation. The department will assist worthy students in securing summer employment in creameries, milk plants or ice cream factories. This requirement may displace that of general farm experience noted in the requirements for graduation.

COURSES OF INSTRUCTION

131. *Principles of Dairying*. Class 2 hours. Laboratory 3 hours.
Required in Agriculture.

Text: *Principles of Dairying*, by Judkins.

Laboratory fee: \$2.00.

232. *Dairy Plant Equipment*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Physics A244-5.

Required in Dairy Products and Manufactures.

Text: *Dairy Engineering*, by Bowen.

Laboratory fee: \$2.00.

233. *Cheese Making*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Dairying 131.

Required in Dairy Products and Manufactures.

Text: *Cheese*, by Van Slyke and Price.

Laboratory fee: \$2.00.

311, 312, 313. *Judging of Dairy Products*. Class and laboratory combined 2 hours.

Required in Dairy Products and Manufactures. Suggested for Home Economics students.

Laboratory fee: \$1.00 per quarter.

330. *The Farm Dairy*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Dairying 131.

Text: *Farm Dairying*, by McKay and Larsen.

Laboratory fee: \$2.00.

- 331, 332, 333. *Market Milk.* Class 2 hours. Laboratory 3 hours.

Prerequisite: Dairying 131.

Required in Dairy Products and Manufactures.

Text: *Market Milk*, by Kelly and Clement.

Laboratory fee: \$2.00 per quarter.

335. *Butter Making.* Class 3 hours.

Prerequisite: Dairying 131.

Required in Dairy Products and Manufactures.

Text: *The Butter Industry*, by Hunziker.

323. *Butter Making.* (Laboratory). Laboratory 6 hours.

Prerequisite: Assignment in Dairy Products 335.

Required in Dairy Products and Manufactures.

Text: *The Butter Industry*, by Hunziker.

Laboratory fee: \$3.00.

336. *Sanitary Control of Dairy Products.* Class 2 hours. Laboratory 3 hours.

Prerequisite: General Bacteriology. Dairying 131.

Required in Dairy Products and Manufactures.

Laboratory fee: \$3.00.

411. *Seminar.* Class 1 hour.

Prerequisite: Senior standing.

Required of Dairy Products and Manufacturing senior students.

421. *Dairy Technology.* Class 2 hours.

Prerequisites: Dairy Products 331, 335, 441, 431.

Required in Dairy Products and Manufactures.

431. *Dairy Products Merchandising.* Class 2 hours. Laboratory 3 hours.

Prerequisite: Agricultural Economics 332, 333.

Required in Dairy Products and Manufactures.

Laboratory fee: \$1.00.

432. *Laboratory Control of Dairy Products.* Class 2 hours. Laboratory 3 hours.

Prerequisite: Organic Chemistry. Dairying 131.

Required in Dairy Products and Manufactures.

Laboratory fee: \$4.00.

- 441, 442. *Ice Cream Making.* Class 2 hours. Laboratory 6 hours.

Prerequisite: Dairying 131.

Required in Dairy Products and Manufacturing.

Laboratory fee: \$2.00 per quarter.

443. *Management of Dairy Plants.* Class 3 hours. Laboratory 3 hours.

Prerequisite: Senior standing in Dairy Products.

Required in Dairy Products and Manufacturing.

Text: *Management of Dairy Plants*, by Mortensen.

Laboratory fee: \$1.00.

SHORT COURSES IN DAIRY MANUFACTURES

The Department of Dairy Products and Manufactures offers three distinct short courses in Market Milk, Ice Cream and Butter. These courses are designed primarily for those persons who have had some practical experience in plant work and who desire to become familiar with the latest work in their particular field. These courses will be offered during the latter part of the winter quarter and each course will be of one week's duration. For further particulars, including an outline of the work for each course and the dates given, write to the Department of Dairy Products and Manufacturers, Texas Technological College.

The following courses can be given by correspondence:

131. *Principles of Dairying.*

233. *Cheese Making.*

323. *Butter Making* (Laboratory).

330. *The Farm Dairy.*

331, 332, 333. *Market Milk.*

335. *Butter Making.*

Note:—Access to equipment is necessary in all of these subjects.

DEPARTMENT OF HORTICULTURE

Professor Mahoney, Associate Professor Russell.

The Department of Horticulture offers instruction in the fundamental principles underlying Horticulture. This comprises instruction in plant propagation, orcharding, floriculture, truck farming, ornamentals, and landscape designing.

The fact that every farmer should have his own home garden and should beautify his own farm property is properly stressed.

Space for greenhouse instruction with the necessary laboratory equipment is available.

The beautification of the campus, which is under way, offers abundant instruction to the student in planning, planting, training, and identification of trees, shrubs, flowering shrubs, and flowering annuals and perennials.

The curriculum in Horticulture aims to give a thoroughgoing knowledge of the fundamentals underlying all fields of horticulture together with a well rounded college education.

The purpose of the curriculum in Landscape Architecture is to provide instruction that will equip the student for practice as a landscape architect. The course of study provided gives instruction in the design, construction, planting, development and maintenance of farmsteads, estates, private grounds, parks, playgrounds, subdivisions, golf courses and city planning.

The Department of Horticulture offers the basic fundamental work in Genetics required of all Agricultural students.

COURSES OF INSTRUCTION

131. *Home Gardening*. Class 2 hours. Laboratory 3 hours.

A course designed for non-agricultural students interested in home and garden improvement.

Spring quarter.

141. *Plant Propagation*. Class 3 hours. Laboratory 3 hours.

Prerequisite: Botony 131.

Required of all students in Agriculture. Prerequisite to all courses in Horticulture.

Laboratory fee: \$2.00.

(Note:—Students who have approached part of this subject in high school Vocational Agriculture, will be advanced to suit their needs and will not be required unnecessarily to repeat work already covered).

233. *Vegetable Gardening*. Class 3 hours.

Prerequisite: Horticulture 141.

Required of all Agricultural students.

239. *Floriculture*. Class 2 hours. Laboratory 3 hours.

Required of all Horticulture students.

321. *Ornamentals*. Class 2 hours, and field trips.

Prerequisite: For Landscape Architecture students.

322. *Ornamentals*. Class 2 hours, and field trips.

Prerequisite 321.

323. *Ornamentals*. Class 2 hours, and field trips.

331. *Grapes and Small Fruits*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Horticulture 141.

Required of all Horticulture students.

Laboratory fee: \$3.00.

332. *Pruning and Spraying*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Horticulture 141, 232.

Required of all Horticultural students.

Laboratory fee: \$1.00. Field trip fee: \$2.00.

333. *Sub-tropical Pomology*. Class 3 hours.
Prerequisite: Horticulture 141.
341. *Orcharding*. Class 3 hours. Laboratory 3 hours.
Prerequisite: Horticulture 141.
Required of all Horticulture students.
Laboratory fee: \$2.
- 411 (412). *Seminar in Horticulture*. Class 1 hour.
Prerequisite: Senior standing.
421. *Care of Plant Materials*. Class 2 hours.
Senior Landscape Architecture students.
430. *Horticulture Problems*. Class 3 hours.
Prerequisite: Senior standing in Horticulture.
431. *Ornamentals*. Class 2 hours. Laboratory 3 hours.
Prerequisite: Horticulture 141.
Laboratory fee: \$2.00.
434. *Citriculture*. Class 3 hours.
Prerequisite: Horticulture 141 and 341; Genetics 332.
Required of all Horticulture students.
- 435, 436, 437. *Advanced Pomology*. Class 3 hours.
Prerequisite: Senior standing in Horticulture.
439. *Orchard Diseases and Insects and Their Control*. Class 3 hours.
Prerequisite: Junior standing in Horticulture.
Required of all Horticulture students.
449. *Systematic Pomology*. Class 3 hours. Laboratory 3 hours.
Prerequisite: Horticulture 141, 232; Horticulture 341.
Required of all Horticulture students.
Laboratory fee: \$4.00.

LANDSCAPE ARCHITECTURE

239. *Landscape Perspective*. Credits 3.
Prerequisite: Architecture 121 or equal.
Required in Landscape Architecture.
331. *Landscape Design*. Class 1 hour. Laboratory 3 hours.
Prerequisite: Drawing 124, Architecture 123.
332. *Landscape Design*. Class 1 hour. Laboratory 3 hours.
333. *Landscape Design*. Class 1 hour. Laboratory 6 hours.
334. *Mapping and Topography*. Class 1 hour. Laboratory 6 hours.
Prerequisite: One year mathematics.

335, 336. *Landscape Construction*. Class 2 hours. Laboratory 3 hours.

Prerequisite: Civil Engineering 230.

337. *Landscape Appreciation*. Class 3 hours.

429. *Office Practice in Landscape Architecture*. Class 2 hours.
For senior Landscape Architecture students.

431, 432, 433. *Advanced Landscape Design*. Class 1 hour. Laboratory 6 hours.

Prerequisite: Landscape Architecture 333, 334, 336.

435. *Planting Design*. Class 1 hour. Laboratory 6 hours.

Prerequisite: Horticulture 323, Landscape Architecture 333.

436. *Planting Design*. Class 1 hour. Laboratory 6 hours.

437, 438. *City Planning*. Class 1 hour. Laboratory 6 hours.

GENETICS

331. *Principles of Genetics*. Class 2 hours. Laboratory 3 hours.

Prerequisite: One year Mathematics, Botany; Agricultural Statistics 334.

Required of all Agricultural students.

Laboratory fee: \$1.00.

332. *Principles of Genetics*. Class 3 hours.

Prerequisite: Genetics 331.

Required of all Agricultural students.

The following courses can be given by correspondence:

*141. *Plant Propagation*.

*232. *Vegetable Gardening*.

*331. *Grapes and Small Fruits*.

434. *Citriculture*.

337. *Landscape Appreciation*.

*In correspondence instruction access to equipment is necessary.

SCHOOL OF ENGINEERING

WILLIAM J. MILLER, Dean

The importance of the School of Engineering in the Texas Technological College is stressed in the first section of the bill by which the Thirty-eighth Legislature established this institution. It is here pointed out that the commercial development of our State depends largely upon the opportunities for students to obtain thorough training in engineering and manufacturing fields.

HISTORY AND BUILDING

In accordance with the importance of this School, the second largest building on the campus is the first unit of the Engineering group, with a floor area of approximately 27,000 square feet. This building is designed eventually to house only the Department of Textile Engineering, but for the present practically all instruction in the various engineering courses offered by this School is given in this building.

During the fall of 1926 a temporary building 50x100 feet of hollow tile construction was erected to house the pattern-making shop, machine shop, and an elementary mechanical engineering laboratory.

The first unit of the main Engineering building is being built during the school year of 1927-28 and should be ready for use at the opening of the 1928-29 session. This is to cost approximately \$240,000 and will have a floor area of approximately 52,000 square feet. It will include offices for the engineering faculty, laboratories for the Departments of Architectural, Civil, Electrical and Mechanical Engineering, Engineering Drawing rooms and class rooms. Approximately \$70,000 is being expended for apparatus for the above laboratories. This will make them adequately equipped for efficient instruction in all courses offered in these departments.

PURPOSE

The aim and purpose of the School of Engineering is to turn out men who are thoroughly grounded in the fundamentals of all engineering work and specialized in one particular line only to the extent that experience appears to demand as a minimum. In other words, the course of study in the School of Engineering is planned with the view of giving the student the essential basic training which he cannot get after graduation and leaving a large part of his specialization to his later professional employment. Experience has shown this type of training to produce the most successful engineers.

SCHOOL OF ENGINEERING

One of the prime essentials of an engineer is character. Recognizing this fact, the engineering instruction at all times aims to emphasize the qualities of honesty, loyalty, thoroughness, and industry. Engineering has taken its rightful place as one of the learned professions, and for this reason the course of study is designed to foster a spirit of culture and ethics. From the foregoing it may be summarized that the ideal product of the Engineering School is a logical thinker who is a man of character, culture, and professional attitude with a capacity and love for work, and with a substantial knowledge of facts in his chosen field.

UNIFORM FRESHMAN YEAR

All Engineering students are required to take identical work throughout the freshman year. This is done in order that the student may have the opportunity of becoming more familiar with the courses of instruction and the possibilities after graduation in the various branches of engineering before he chooses his professional course.

To aid the student in the proper selection of his professional work, lectures on the scope and opportunities of the various branches of the profession will be given by practicing engineers.

FIELD FOR GRADUATES

The field of engineering open to the engineering graduate is too broad and the opportunities which it presents are too numerous to be presented in the space of this bulletin. Engineering has been defined as "The art of directing the great sources of power in nature for the use and convenience of man," which indicates employment in development of natural resources, manufacturing, and commerce.

The engineering student upon graduation usually spends a period of time in apprentice or subordinate positions, securing experience and preparing himself for the more important work of the executive, the designer, the consulting engineer, the teacher, or the operator, etc. For a number of years the demand for engineering graduates by the industries has considerably exceeded the supply.

An engineering training is becoming more and more recognized as a desirable preparation for a general commercial career, as it develops a mathematical and analytical type of mind, and demands systematic and methodical work. For this reason many engineering graduates eventually hold important executive positions.

ADMISSION

The requirements for admission to the School of Engineering are essentially the same as those for admission to other schools of the college. For details of these general requirements, see the paragraph on Admission Requirements under the division of the catalogue on general information. The special requirements for admission to the School of Engineering are as follows:

- (1) Two credits must be offered in Algebra.
- (2) If solid geometry is not offered as an entrance credit, it must be completed before the sophomore year. No college credit is given for solid geometry, and high school students contemplating an engineering course are urged to take this subject in high school.
- (3) Instead of a foreign language two units may be presented in laboratory sciences or one unit in Science and one-half unit each in solid geometry and trigonometry.

REGULATIONS

The regulations governing the students in the school of Engineering are essentially the same as those applying to students in the other schools of the College.

An exception is made in the matter of grading. Due to the nature of engineering courses, the grade of incomplete is given only when a student is prevented from completing his work in a course by causes beyond his control.

THE CREDIT HOUR

A "credit hour" is given in a subject for each three hours of student time that it requires per week for a term. Each recitation demands two hours of preparation, thus making the number of recitations per week equal to the credit hour value of the subject. The credit hour value of a laboratory subject is equal to the number of three-hour periods per week where no outside work is necessary. The second digit of any subject number indicates its credit hour value.

REQUIREMENTS FOR DEGREES

(All Engineering Students).

The degree of Bachelor of Science in Architectural, Civil, Electrical, Geological, *Mechanical, and Textile Engineering will be conferred upon students who satisfactorily complete the requirements of the respective curricula as outlined on the following page:

*Chemical Engineering is offered as a division of Mechanical Engineering and leads to the degree of Bachelor of Science in Mechanical Engineering (Chemical Engineering option).

**UNIFORM FRESHMAN YEAR
FOR ENGINEERING STUDENTS**
(Who have not had solid geometry)

Fall Term			Winter Term			Spring Term		
Subject	Credit Hours		Subject	Credit Hours		Subject	Credit Hours	
Eng. 121	48	3	Eng. 132	48	3	Eng. 133	48	3
*Chem. 141	42	4	Chem. 142	42	4	Chem. 143	42	4
Math. E130	53	3	Math. E132	53	3	Math. E133	53	3
Math. E131	53	3	Phys. 144	58	4	Phys. 145	58	4
E. Dwg. 121	108	2	E. Dwg. 122	108	2	E. Dwg. 132	108	2
P. T. 111	57	1	P. T. 112	57	1	P. T. 113	57	1
			Physical Training			Physical Training		
	16			17			17	

FOR ENGINEERING STUDENTS
(Who have not had solid geometry)

Fall Term			Winter Term			Spring Term		
Subject	Credit Hours		Subject	Credit Hours		Subject	Credit Hours	
Eng. 131	48	3	Eng. 132	48	3	Eng. 133	48	3
*Chem. 141	42	4	Chem. 142	42	4	Chem. 143	42	4
Math. E141	53	4	Math. E130	53	3	Math. E132	53	3
E100	53		Phys. 144	58	4	Phys. 145	58	4
111	57	1	E. Dwg. 131	108	3	E. Dwg. 132	108	3
			P. T. 112	57	1	P. T. 113	57	1
			Physical Training			Physical Training		
	12+			18			18	

*Geological Engineering student will take Geology 141, 142, 143 instead of Chemistry in Freshman year.

SCHOOL OF ENGINEERING

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ARCHITECTURAL ENGINEERING

Fall Term			Winter Term			Spring Term		
			Freshman Year			Sophomore Year		
Subject		Credit Hours	Subject		Credit Hours	Subject		Credit Hours
*Eng.	231 Literature	48	*Eng.	232 Literature	48	*Eng.	235 Literature	48
Phys.	241 Elec. and Mag.	58	Phys.	242 Elec. and Mag.	58	Phys.	243 Sound and Light	58
Math.	E231 Analytics	53	Math.	E232 Calculus	53	Math.	E233 Calculus	53
E. Dwg.	231 Deser. Geometry	108	Arch.	131 Shades & Shadows	104	Arch.	132 Perspective	104
Arch.	211 Arch. History	104	Arch.	212 Arch. History	104	Arch.	123 Arch. History	104
Arch.	221 Arch. Draw	104	Arch.	222 Arch. Drawing	104	Arch.	125 Arch. Drawing	104
Arch.	221 Freehand Drawing	104	Arch.	122 Freehand Drawing	104	Arch.	223 Freehand Drawing	104
P. T.	211 Physical Training	57	P. T.	212 Physical Training	57	P. T.	213 Physical Training	57
		19			19			17
			Junior Year			Senior Year		
C. E.	331 Applied Mechanics	105	C. E.	332 Applied Mechanics	105	C. E.	433 Concrete Structures	105
Arch.	231 Elementary Design	104	Arch.	232 Elementary Design	104	Arch.	326 Sanitation	104
C. E.	230 Surveying	105	C. E.	338 Structures	105	Eco.	233 Principles	44
Arch.	321 Arch. History	104	Arch.	322 Arch. History	104	A. E.	423 Arch. Construction	104
E. E.	334 Elements	107	E. E.	335 Elements	107	A. E.	445 Arch. Construction Thesis Problem	104
Elective		3	Elective		3	A. E.	413 Business Practice	104
		17			17	A. E.	416 Estimating	104
						Arch.	419 Specification	104
								17
			Senior Year					
C. E.	431 Reinf. Con. Theor.	105	C. E.	442 Concrete Structures	105	C. E.	433 Concrete Structures	105
M. E.	435 Heating and Vent.	112	C. E.	434 Structural Design	105	Arch.	326 Sanitation	104
Eco.	231 Principles	44	M. E.	436 Heating and Vent.	112	Eco.	233 Principles	44
A. E.	411 Business Practice	104	Eco.	232 Principles	44	A. E.	423 Arch. Construction	104
A. E.	414 Estimating	104	A. E.	412 Business Practice	104	A. E.	445 Arch. Construction Thesis Problem	104
Arch.	417 Specifications	104	A. E.	415 Estimating	104	A. E.	413 Business Practice	104
Arch.	421 Arch. Construction	104	Arch.	418 Specifications	104	A. E.	416 Estimating	104
A. E.	434 Arch. Construction	104	A. E.	422 Arch. Construction	104	Arch.	419 Specification	104
		17			18			17

* Or English E231, E232 and E233.

CIVIL ENGINEERING

Fall Term			Winter Term			Spring Term		
Subject	Credit Hours		Subject	Credit Hours		Subject	Credit Hours	
E231 Analytics	53		E232 Calculus	53		E233 Calculus	53	
*Eng. 231 Literature	48		232 Literature	48		*Eng. 233 Literature	48	
C. E. 241 Plane Surveying	105		C. E. 242 Plane Surveying	105		C. E. 243 Plane surveying	105	
Phys. 241 Elec. and Mag.	58		242 Elec. and Mag.	58		Phys. 243 Sound and Light	58	
Geol. 332 Engineering Geol.	50		333 Engineering Geol.	50		E.Dwg. 231 Descriptive Geom.	108	
P. T. 211 Physical Training	57		212 Physical Training	57		P. T. 213 Physical Training	57	
	18			18			18	
Junior Year			Junior Year			Junior Year		
C. E. 331 Applied Mechanics	105		332 Applied Mechanics	105		333 Applied Mechanics	105	
Math. E331 Advanced Calculus	53		E333 Advanced Calculus	53		Math. E333 Diff. Equation	53	
M. E. 337 Heat Engineering	112		336 Heat Engineering	112		M. E. 339 Heat Engineering	112	
C. E. 335 Highway Eng.	105		C. E. 336 Highway Eng.	105		C. E. 337 Highway Eng.	105	
C. E. 334 Surveying	105		M. E. 338 Structures	112		C. E. 339 Structures	105	
P. Spk. 131 Elements	18		C. E. 315 Graphics	105		C. E. 316 Graphics	105	
	18		C. E. 312 Materials Lab.	105		C. E. 313 Concrete Lab.	105	
			C. E. 314 Highway Lab.	105			17	
Senior Year			Senior Year			Senior Year		
C. E. 431 Concrete	105		432 Concrete	105		C. E. 433 Concrete	105	
C. E. 442 Structures	105		C. E. 434 Structures	105		C. E. 430 Materials	105	
E. E. 337 Elements	107		C. E. 434 Structures	105		Gov. 330 Bus. Law	44	
C. E. 439 Hydraulics	105		E. E. 336 Elements	107		C. E. 412 Hydraulic Lab.	105	
Eco. 231 Principles	40		E. E. 336 Laboratory	107		Eco. 233 Principles	44	
Elective A See list below			Eco. 232 Principles	44		Elective A See list below		
	19		Elective A See list below			Elective		
				17			18	
Bact. 331 Gen. Bacteriology	42		Bact. 332 Gen. Bacteriology	42		Bact. 333 Gen. Bacteriology	42	
C. E. 4311 Highway Eng.	105		C. E. 4312 Highway eng.	105		C. E. 4313 Highway eng.	105	
Foreign Language			Foreign Language			Foreign Language		

* Or English E231, E232 and E233.

SCHOOL OF ENGINEERING

ELECTRICAL ENGINEERING

Spring Term			Winter Term			Fall Term		
			Freshman Year (See p. 72)			Sophomore Year		
Subject		Credit Hours	Subject		Credit Hours	Subject		Credit Hours
*Eng. 231 Literature	48	3	*Eng. 232 Literature	48	3	*Eng. 233 Literature	48	3
Phys. 241 Elec. and Mag.	58	4	Phys. 242 Elec. and Mag.	58	4	Phys. 243 Sound and Light	58	4
Math. E231 Analytics	53	3	Math. E232 Calculus	53	3	Math. E233 Calculus	53	3
C. E. 230 Surveying	105	3	Pb. Spk. 121 Elements	59	3	Chem. 339 Power Plant	42	3
E. Dwg. 231 Descriptive Geom.	108	3	E. Dwg. 232 Machine Drawing	108	3	M. E. 221 Problems	112	2
M. E. 211 Pattern Shop	112	1	M. E. 212 Pattern Shop	112	1	E. E. 231 Principles	107	1
P. T. 211 Physical Training	57	1	P. T. 212 Physical Training	57	1	P. T. 213 Physical Training	57	1
18			18			19		
			Junior Year					
E. E. 331 Principles	107	3	E. E. 332 Principles	107	3	E. E. 333 Principles	107	3
E. E. 321 Laboratory	107	2	E. E. 322 Laboratory	107	2	E. E. 323 Laboratory	107	2
C. E. 331 Applied Mechanics	105	3	C. E. 332 Applied Mechanics	105	3	C. E. 333 Applied Mechanics	105	3
M. E. 334 Heat Engineering	112	3	M. E. 335 Heat Engineering	112	3	M. E. 336 Heat Engineering	112	3
Math. E331 Adv. Calculus	53	3	Math. E332 Adv. Calculus	53	3	Math. E333 Adv. Calculus	53	3
C. E. 439 Hydraulics	105	3	M. E. 328 Laboratory	112	2	M. E. 329 Laboratory	112	2
M. E. 311 Machine Shop	112	1	M. E. 312 Machine Shop	112	1	M. E. 313 Machine Shop	112	1
18			17			18		
			Senior Year					
E. E. 431 A. S. Machines	107	3	E. E. 432 A. C. Machines	107	3	E. E. 433 A. C. Machines	107	3
E. E. 421 A. C. Laboratory	107	2	E. E. 422 A. C. Laboratory	107	2	E. E. 423 A. C. Laboratory	107	2
E. E. 434 Applications	107	3	E. E. 435 Applications	107	3	E. E. 436 Transmission	107	3
Eco. 231 Principles	44	3	Eco. 232 Principles	44	3	Eco. 233 Principles	44	3
Phys. 331 Elec. Measurements	58	3	Phys. 332 Elec. Measurements	58	3	Gov. 330 Bus. Law	44	3
M. E. 427 Dynamics	112	2	C. E. 312 Testing Laboratory	105	1	E. E. 410 Seminar	107	3
Elective		3	Elective		3	Elective		3
19			18			18		

* Or English E231, E232 and E233.

GEOLOGICAL ENGINEERING

Fall Term			Winter Term			Spring Term		
Subject	Credit Hours		Subject	Credit Hours		Subject	Credit Hours	
141 Elementary Chem.	4	42	142 Elementary Chem.	4	42	143 Elementary Chem.	4	42
241 Elec. and Mag. Phys.	4	58	242 Elec. and Mag. Phys.	4	58	243 Sound and Light Phys.	4	58
231 Detrm., Mineralogy Geol.	3	50	232 Detrm., Mineralogy Geol.	3	50	233 Elemen. Eco. Geol.	3	50
E231 Analytics Math.	3	53	E232 Calculus Math.	3	53	E233 Calculus Math.	3	53
231 Literature *Eng.	3	48	232 Literature *Eng.	3	48	233 Literature *Eng.	3	48
211 Physical Training P. T.	1	57	212 Physical Training P. T.	1	57	213 Physical Training P. T.	1	57
	18			18			18	
Summer			Summer					
			†Geol. 290 Field Geol.					
Junior Year			Junior Year					
241 Plane Survey C. E.	4	105	242 Plane Survey C. E.	4	105	243 Plane Survey C. E.	4	105
334 Optical Min. Geol.	3	50	335 Optical Min. Geol.	3	50	336 Optical Min. Geol.	3	50
337 Invert. Pale'tology Math.	3	50	338 Invert. Pale'tology Geol.	3	50	339 Invert. Pale'tology Geol.	3	50
E331 Calculus E. Dvg.	3	53	331 Calculus E. Dvg.	3	108	330 Geologic Mapping C. E.	3	105
-331 Applied Mech. C. E.	1	105	332 Applied Mech. C. E.	1	105	333 Applied Mech. C. E.	1	105
311 Geol. of Texas C. E.	17	50	312 Geol. of Texas C. E.	1	50	313 Geol. of Texas C. E.	1	50
			312 Materials Lab. C. E.	1	105	313 Cement Lab. C. E.	1	105
				18			18	
Senior Year			Senior Year					
431 Adv. Geol. Geol.	3	50	432 Adv. Geol. Geol.	3	50	433 Adv. Geol. Geol.	3	50
434 Ore Deposits Geol.	3	50	435 Petroleum Geol. Geol.	3	50	436 Petroleum Geol. Geol.	3	50
231 Principles Eco.	3	44	232 Principles Eco.	3	44	233 Principles Eco.	3	44
334 Surveying Geol.	3	105	Pb. Spk. 131 Elements Geol.	3	59	330 Business Law Geol.	3	44
437 Elective Geol.	3	50	438 Elective Geol.	3	50	439 Elective Geol.	3	50
	18			18			18	

* Or English E231, E232 and E233.

Fall Term

Winter Term

Spring Term

* Or English E231, E232 and E233.

MECHANICAL ENGINEERING

(Chemical Engineering Optional)

Fall Term			Winter Term			Spring Term		
Subject	Credit Hours		Subject	Credit Hours		Subject	Credit Hours	
*Eng. 231 Literature	48		*Eng. 232 Literature	48		*Eng. 233 Literature	48	
Phys. 241 Elec. and Mag.	58		Phys. 242 Elec. and Mag.	58		Phys. 243 Sound and Light	58	
Math. E231 Analytic	53		Math. E232 Calculus	53		Math. E233 Calculus	53	
Chem. 234 Adv. Inorganic	42		Chem. 235 Analytical Chem.	42		Chem. 236 Analytical Chem.	42	
Chem. 237 Analytical Chem.	42		Chem. 131 Elements	59		Chem. 236 Adv. Inorganic	42	
P. T. 211 Physical Training	57	17	P. T. 212 Physical Training	57	1	P. T. 213 Physical Training	57	1
					20			17
			Junior Year					
Chem. 343 Organic Chemistry	42	4	Chem. 344 Organic Chemistry	42	4	Chem. 345 Organic Chemistry	42	4
Chem. 441 Physical Chem.	42	4	Chem. 442 Physical Chemistry	42	4	Chem. 443 Physical Chemistry	42	4
C. E. 331 Applied Mechanics	105	3	C. E. 332 Applied Mechanics	105	3	C. E. 333 Applied Mechanics	105	3
Eco. 231 or Kor. Language	44	3	Eco. 232 or For. Language	44	3	Eco. 233 or For. Language	44	3
Math. E331 Advanced Calculus	53	3	Math. E332 Advanced Calculus	53	3	Chem. 330 Commercial Law	44	3
Chem. E321 Chem. Plant Des.	42	2	Chem. E322 Chem. Plant Des.	42	2	Chem. 339 Power Plant Chem.	42	3
		19			19			20
			Senior Year					
E. E. 324 Elements	107	3	E. E. 335 Elements	107	3	E. E. 336 Elements	107	3
M. E. 331 M. E. Equipment	112	3	Chem. 311 Laboratory	107	1	Chem. 312 Laboratory	107	1
Chem. 335 Industrial Chem.	42	3	Chem. 337 Industrial Chem.	42	3	Chem. 338 Industrial Chem.	42	3
Chem. 434 Prin. of Chem. Egr.	42	3	Chem. 435 Prin. of Chem. Egr.	42	3	Chem. 436 Prin. of Chem. Egr.	42	3
Electives	6	6	M. E. 332 Thermodynamics	112	3	Chem. 333 Heat Engr. Lab.	112	2
		18	M. E. 328 Heat Engr. Lab.	112	2	M. E. 439 Metallurgy	112	3
			Elective		3			18

* Or English E231, E232 and E233.

TEXTILE ENGINEERING

Fall Term			Winter Term			Spring Term		
			Freshman Year (See p. 777) Sophomore Year					
Subject		Credit Hours	Subject		Credit Hours	Subject		Credit Hours
C. E.	230	105	*Eng. 232	48	3	*Eng. 233	48	3
*Eng.	231	48	Math. E232	63	3	Pb. Spk. 131	69	3
Math.	E231	63	M. E.	112	2	Math. E233	63	3
Phys.	241	58	Phys.	232	4	M. E.	420	2
T. E.	224	4	E. Dwg.	68	3	Phys.	243	3
	Mfg.	113	232	108	3	243	Sound and Light	2
P. T.	211	2	T. E.	225	2	T. E.	226	4
	Physical Training	57		Mfg.	113		Fabric Design and	2
		16		Physical Training	57	P. T.	213	1
					18		Physical Training	57
								19
			Junior Year					
C. E.	331	3	C. E.	332	3	C. E.	333	3
Chem.	343	4	Chem.	344	4	Chem.	345	4
E. E.	334	3	E. E.	334	4	E. E.	325	2
T. E.	331	3	E. E.	335	3	E. E.	336	3
	341	4	T. E.	332	3	Eco.	281	3
	Mfg.	113		342	4	T. E.	343	4
		17		Fabric Design and	113		Fabric Design and	113
				Mfg.	19		Mfg.	19
			Senior Year					
M. E.	427	2	Eco.	232	4	Eco.	233	3
Eco.	231	3	M. E.	318	1	Gov.	820	2
M. E.	334	3	M. E.	336	3	M. E.	819	1
T. E.	434	3	M. E.	434	3	M. E.	336	3
T. E.	431	3	T. E.	435	3	T. E.	436	3
	Fabric Design and	113	T. E.	432	3	T. E.	433	3
	Mfg.	4		Fabric Design and	113		Fabric Design and	113
		18		Mfg.	4		Mfg.	4

* Or English E231, E232 and E233.

Announcement of Courses for School of Engineering, 1928-1929.

DEPARTMENT OF ARCHITECTURAL ENGINEERING

Associate Professor Shelton

The course of study in Architectural Engineering lays emphasis upon advanced construction and the mechanical equipment of buildings, and is intended to prepare the student to become a structural designer and engineer.

COURSES OF INSTRUCTION

121-2-3. *Freehand Drawing*. Laboratory 6 hours.

Prerequisite: None.

Fee, 50 cents each term.

131. *Shades and Shadows*. Laboratory 9 hours.

Prerequisite: Drawing 231.

132. *Perspective*. Laboratory 9 hours.

Prerequisite: Drawing 231.

211-2-3. *Architectural History*. Class 1 hour.

Prerequisite: Sophomore standing.

Fee, 50 cents each term.

221-2-3. *Architectural Drawing*. Laboratory 6 hours.

Prerequisite: Freshman Drawing.

221-2-3. *Elementary Designs*. Laboratory 9 hours.

Prerequisite: Architecture 131, 132, 126.

Fee, 50c each term.

321-2-3. *Architectural History*. Class 2 hours.

Prerequisite: Architecture 211-2-3.

Fee, 50 cents each term.

326. *Building Sanitation*. Class 2 hours.

Prerequisite: Junior standing in Architecture.

417-8-9. *Specifications*. Class 1 hour.

Prerequisite: Senior standing in Architectural Engineering.

411-2-3 *Business Practice*. 1 hour.

Prerequisite: Senior standing in Architectural Engineering.

414-5-6. *Estimating*. Class 1 hour.

Prerequisite: Senior standing in Architectural Engineering.

421-2-3. *Architectural Construction*. Class 2 hours.

Prerequisite: Senior standing in Architectural Engineering.

434, 445. *Architectural Construction*. Laboratory 9 hours, fall term; 12 hours, spring term.

Prerequisite: To be taken with Architectural Engineering 421-2.

DEPARTMENT OF CIVIL ENGINEERING

Professor Murdough, Associate Professor Adams.
Assistant Professor McRee

Civil engineering includes a number of branches, each resting on a relatively compact body of principles. They may be classified as:

(1) *Surveying and Geodesy*—which deals with the measurement and delineation of portions of the earth's surface and objects on it.

(2) *Railroad Engineering*—which deals with the location, construction, and some phases of the maintenance and operation of railroads.

(3) *Highway Engineering*—which deals with the location, construction, and maintenance of highways and pavements.

(4) *Hydraulic Engineering*—which deals with the use and control of water as a source of power, and as a necessity of life and convenience to mankind. In some of its phases the practice of hydraulic engineering demands a knowledge of electrical and mechanical engineering.

(5) *Sanitary Engineering*—which deals with problems pertaining to the protection and preservation of the public health.

(6) *Structural Engineering*—which deals with the design and construction of fixed structures and their foundations. A profession closely allied to this branch is Architectural Engineering.

The course in Civil Engineering offered by the Texas Technological College aims to give thorough instruction in the fundamentals of each of these branches.

COURSES OF INSTRUCTION

230. *Elementary Surveying*. Class 1 hour. Laboratory 6 hours.

Prerequisite: Mathematics E130.

Fee: \$1.00.

Laboratory deposit: \$2.00.

241-2-3. *Plane Surveying*. 4 periods class and laboratory per week.

Prerequisite: Mathematics E130.

Fee: \$1.00 per term.

Laboratory deposit: \$2.00 per term.

312. *Materials Laboratory.* Laboratory 3 hours.

Prerequisite: Registration in Civil Engineering 332.

Fee: \$1.00.

Laboratory deposit: \$2.00.

313. *Cement Laboratory.* Laboratory 3 hours.

Prerequisite: Junior Engineering standing.

Fee: \$1.00.

Laboratory deposit: \$2.00.

314. *Highway Laboratory.* Laboratory 3 hours.

Prerequisite: Civil Engineering 335.

Fee: \$1.00.

Laboratory deposit: \$2.00.

(This course was formerly Civil Engineering 413).

315-6. *Graphics.* Laboratory 3 hours.

Prerequisite: Registration in Civil Engineering 338-9.

331-2-3. *Applied Mechanics.* Class 3 hours.

Prerequisite: Mathematics E233.

334. *Surveying.* Class 1 hour. Laboratory 6 hours.

Prerequisite: Civil Engineering 241-2-3.

Fee: \$1.00.

Laboratory deposit: \$2.00.

338-9. *Structures.* Class 3 hours.

Prerequisite: Civil Engineering 331.

(This course was formerly Civil Engineering 342-3).

412. *Hydraulic Laboratory.*

Prerequisite: Civil Engineering 439. Laboratory 3 hours.

Fee: \$1.00.

Laboratory deposit: \$2.00.

430. *Materials.* Class 3 hours.

Prerequisite: Senior Engineer standing.

431-2-3. *Reinforced Concrete Theory.* Class 3 hours.

Prerequisite: Civil Engineering 331-2-3.

(Civil Engineering 432 was formerly Civil Engineering 443).

442, 443. *Structures.* Class and Laboratory.

Prerequisite: Civil Engineering 342-3.

335-6-7. *Highway Engineering.* Class 2 hours.

Prerequisite: Junior Engineer standing.

(This course was formerly Civil Engineering 435-6-7).

439. *Hydraulics*. Class 3 hours.

Prerequisite: Civil Engineering 331.

420. *Highway Laboratory*.

Prerequisite: Registration in C. E. 4313.

Fee: \$1.00.

Laboratory deposit: \$2.00.

4311-12-13. *Highway Engineering*.

Prerequisite: Civil Engineering 335-6-7.

DEPARTMENT OF ELECTRICAL ENGINEERING

Professor Miller, Associate Professor Young,

Assistant Professor Helwig.

The course in Electrical Engineering aims to give a thorough and comprehensive training in the fundamental principles of electricity and magnetism, which experience has proven to be necessary for the proper development of the electrical engineering student.

The instruction in these principles includes consideration of the theory, operation, and design of circuits, generators, motors, converters, control devices, transmission lines, and distribution systems.

Special emphasis is placed upon the student's ability to reason logically, apply mathematics, and speak and write clear, concise English. In order to prepare the student for his professional courses the first two years are devoted to a study of mathematics, English, physics, chemistry, drawing, and shop practice.

No sharp divisions can be made between the various branches of engineering. Therefore the student is given thorough courses in the fundamentals of chemical, civil, and mechanical engineering in addition to the work in electrical engineering.

In the Electrical Engineering course the theory is taught in the classroom and then applied in the laboratory by practical tests.

COURSES OF INSTRUCTION

231. *Principles of Electrical Engineering*. Class 3 hours.

Prerequisite: Physics 242; Mathematics E232.

311-2. *Electrical Engineering Laboratory*. Laboratory 3 hours.

Prerequisite: Registration in Electrical Engineering 335.

Fee: \$1.00 per term.

321-2-3. *Electrical Engineering*. Laboratory. Laboratory 6 hours.

Prerequisite: Registration in Electrical Engineering 331.

Fee: \$1.00 per term.

- 324-5. *Electrical Engineering Laboratory. Laboratory 3 hours.*
Prerequisite: Registration in Electrical Engineering 335.
Fee: \$1.00 per term.
326. *Electrical Engineering Laboratory. Laboratory and report.*
Prerequisite: Registration in E. E. 338.
Fee: \$1.00.
- 331-2-3. *Principles of Electrical Engineering. Class 3 hours.*
Prerequisite: Electrical Engineering 231.
- 334-5-6. *Elements of Electrical Engineering. Class 3 hours.*
Prerequisite: Physics 243; Mathematics E233.
- 337-8. *Elements of Electrical Engineering. Class 3 hours.*
Prerequisite: Physics 243; Mathematics E233.
410. *Electrical Engineering Seminar. Class 1 hour.*
Prerequisite: Electrical Engineering 432.
- 421-2-3. *Electrical Engineering Laboratories. Laboratory 6 hours.*
Prerequisite: Registration in Electrical Engineering 431.
Fee: \$1.50 per term.
- 431-2-3. *Alternating Current Machinery. Class 3 hours.*
Prerequisite: Electrical Engineering 333.
- 434-5-6. *Electrical Applications and Transmission. Class 3 hours.*
Prerequisite: Registration in Electrical Engineering 431.
437. *Principles of Electrical Communication. Class 3 hours.*
Prerequisite: Senior standing.
438. *Illumination. Class 3 hours.*
Prerequisite: Senior standing.

DEPARTMENT OF ENGINEERING DRAWING

Professor Svensen, Assistant Professor Boller, Instructor Street,
Assistant Speer.

The Department of Engineering Drawing provides fundamental courses in the graphic language as used in the study and practice of the profession of engineering and for the development of the powers of visualization. In addition, certain other courses of educational and practical value are offered.

- 121-2-3. *Engineering Drawing. Lecture 1 hour. Drawing room, 4 hours.*
Prerequisite: Solid Geometry.
Approved drawing equipment required. Cost about \$25.

131-2. *Engineering Drawing*. Lecture, 1 hour. Drawing room, 6 hours.

Same as Engineering Drawing 121-2-3.

Winter and Spring terms only.

124. *Agricultural Drawing*. Three two-hour periods per week for lecture and laboratory.

Prerequisite: None.

Drawing equipment required.

231. *Descriptive Geometry*. Three two-hour periods per week for lecture and laboratory.

232. *Machine Drawing*. Lecture 1 hour. Drawing room 6 hours.

Prerequisite: Engineering Drawing 123.

Winter and Spring terms.

321. *Lettering*. Lecture 1 hour. Drawing room 4 hours.

331-2. *Mechanical Drawing for Teachers*. Lecture 1 hour and 6 hours laboratory per week. Two terms.

Drawing equipment required.

DEPARTMENT OF GEOLOGICAL ENGINEERING

Professor Patton, Associate Professor Russell, Associate Professor Graham, Assistant Professor Stainbrook.

The department of Geological Engineering offers training designed to prepare students for practical work in geology, especially in the application of geology to the exploration for petroleum. The course leads to the degree of B. S. in Geological Engineering.

For a more extended description of the courses listed below see announcements under the Department of Geology, School of Liberal Arts.

141-2-3. *General Geology*. Class 3 hours. Laboratory 3 hours.

Prerequisite: None.

*231-2. *Mineralogy*. Class 1 hour. Laboratory 6 hours.

*Prerequisite: Elementary chemistry or preceded or accompanied by General Chemistry.

233. *Introductory Economic Geology*. Class 3 hours.

Prerequisite: Geology 231-2.

330. *Geologic Mapping*. Class 1 hour. Laboratory 6 hours.

Prerequisites: Geology 141-2-3, and C. E. 230 or C. E. 241-2-3.

290. *Field Geology*. Six weeks in the field.

Prerequisite: Geology 141-2-3.

311-2-3. *Geology of Texas*. Class 1 hour.

Prerequisite: Geology 141.

334-5-6. *Petrology*. Class 1 hour. Laboratory 6 hours.

Prerequisites: Geology 231-2-3.

337-8-9. *Invertebrate Paleontology*. Class 1 hour. Laboratory 6 hours.

Prerequisites: Geology 141-2-3.

431-2-3. *Advanced Physical, Structural and Historical Geology*. Class 3 hours.

Prerequisites: Geology 141-2-3, 231-2-3, and 337-8-9.

434. *Ore Deposits*. Class 3 hours.

Prerequisites: Geology 141-2-3, 231-2-3, 234-5-6.

435. *Geology of Petroleum*. Class 3 hours.

Prerequisites: Geology 434.

437. *Advanced Paleontology*. Class 1 hour. Laboratory 6 hours.

Prerequisites: Geology 337-8-9.

DEPARTMENT OF MECHANICAL ENGINEERING

Associate Professor Tuve, Assistant Professor Farris, Instructor Hardgrave, Instructor Long, Mechanician Bancook, Assistant Pearson.

Mechanical engineering is that branch of engineering which deals with the generation, transmission and utilization of power, the design, construction, operation and testing of machinery, and the management of shops and factories. The course of study in mechanical engineering is designed to prepare the student for entrance into these fields.

The curriculum includes, in addition to the fundamental sciences and the professional courses, a thorough training in the use of English, and foundation courses in economics. Early in his course the student is given sufficient training in the mechanic arts to make him familiar with the use of hand and machine tools and with the methods employed in the machine shop, the pattern shop and foundry, and the forging and heat treating departments. In the professional subjects, by means of lectures, recitations, drawing room and laboratory work, typical mechanical engineering problems are presented and their practical solution by the application of physics, chemistry, and mathematics, is indicated.

CHEMICAL ENGINEERING OPTION

Students desiring to study chemical engineering will register in the Department of Mechanical Engineering, see page 102 for details.

COURSES OF INSTRUCTION

- 211-2. *Pattern Shop*. (E. E.) Laboratory 3 hours.
Fee: \$1.50 per term.
221. *Mechanical Engineering Problems*. Class 1 hour, laboratory 2 hours.
Prerequisite: Physics 144-5.
222. *Mechanism*. Class 2 hours, laboratory 3 hours.
Prerequisite: Drawing 123 or 132.
- 225-6-7. *Shop Practice*. (M. E.). Laboratory 6 hours.
Fee: \$3.00 per term.
- 311-2-3. *Machine Shop*. Laboratory 3 hours.
Prerequisite: Mechanical Engineering 212.
Fee: \$1.50 per term.
315. *Machine Shop*. Laboratory 3 hours.
Prerequisite: Mechanical Engineering 227.
Fee: \$1.50.
- 316-7. *Shop Project Course*. Laboratory 3 hours.
Prerequisite: Mechanical Engineering 315.
Fee: \$1.50 per term.
- 318-9. *Heat Engineering Laboratory*. (T. E.) Laboratory 3 hours.
Prerequisite: Registration in Mechanical Engineering 335.
Fee: \$1.50 per term.
321. *Mechanical Measurements*. (M. E.). Laboratory 6 hours.
Prerequisite: Registration in Mechanical Engineering 331.
Fee: \$1.50.
322. *Thermodynamics Laboratory*. Laboratory 6 hours.
Prerequisite: Mechanical Engineering 332.
Fee: \$1.50.
326. *Machine Design*. Class 2 hours.
Prerequisite: Mechanical Engineering 222, Drawing 232, Civil Engineering 331.
327. *Machine Design*. Laboratory 6 hours.
Prerequisite: Mechanical Engineering 326.
- 328-9. *Heat Engineering Laboratory*. (E. E. and Ch. E.). Laboratory 6 hours.
Prerequisite: Registration in Mechanical Engineering 335.
Fee: \$1.50 per term.
331. *Mechanical Engineering Equipment*. (M. E. and Ch. E.). Class 3 hours.
Prerequisite: Mechanical Engineering 221.

332-3. *Thermodynamics*. (M. E. and Ch. E.). Class 3 hours.

Prerequisite: Mechanical Engineering 331.

334-5-6. *Heat Engineering*. (E. E. and T. E.). Class 3 hours.

Prerequisite: Mechanical Engineering 221.

337-8. *Heat Engineering*. (C. E.). Class 3 hours.

339. *Heat Engineering*. (C. E.) Class 2 hours, laboratory 3 hours.

411-2. *Seminar*. Class 1 hour.

Prerequisite: Senior standing.

420. *Machine Shop*. (T. E.) Laboratory 6 hours.

Fee: \$3.00.

421-2. *Power Plant Laboratory*. Laboratory 6 hours.

Prerequisite: Registration in Mechanical Engineering 431.

Fee: 1.50 per term.

423. *Gas Engines Laboratory*. Laboratory 6 hours.

Prerequisite: Registration in Mechanical Engineering 437.

Fee: \$1.50.

424-5. *Engineering Design*. Laboratory 6 hours.

Prerequisite: Mechanical Engineering 327.

427. *Dynamics*. Class 2 hours.

Prerequisite: Civil Engineering 331-2-3.

428. *Industrial Engineering*. Class 2 hours.

Prerequisite: Mechanical Engineering 434.

431-2. *Power Plant Engineering*. Class 2 hours.

Prerequisite:, Mechanical Engineering 333.

433. *Mechanical Equipment of Buildings*. (M. E.) Class 2 hours, laboratory 3 hours.

Prerequisite: Senior standing.

434. *Industrial Engineering*. Class 3 hours.

Prerequisite: Senior standing.

435-6. *Mechanical Equipment of Buildings*. (A. E.) Class 2 hours, laboratory 3 hours.

Prerequisite: Senior standing.

438. *Internal Combustion Engines*. Class 3 hours.

Prerequisite: Mechanical Engineering 333.

439. *Metallurgy of Iron and Steel*. Class 3 hours.

Prerequisite: Chemistry 143; Physics 243.

CHEMICAL ENGINEERING OPTION

Professor Read.

Students desiring to study chemical engineering will register in the Department of Mechanical Engineering. Certain courses in chemistry and plant design will be substituted for some of the prescribed work in the mechanical engineering curriculum, thus preparing the students for employment in the chemical phases of industrial and manufacturing fields.

Upon the completion of this curriculum the degree of Bachelor of Science in Mechanical Engineering (Chemical Engineering option) will be conferred. The curriculum is so arranged that only one more year of study is required to earn the degree of Bachelor of Science in Chemical Engineering in institutions granting such degree.

COURSES OF INSTRUCTION

321-2. *Chemical Plant Design.*

Six hours drawing and calculations per week. Fall and winter terms.

339. *Power Plant Chemistry.*

Nine hours laboratory. Winter term, and repeated in Spring term.

Prerequisite: Chemistry 141-2-3.

434-5-6. *Principles of Chemical Engineering.*

Three lectures and recitations per week.

Prerequisites: Chemistry 441-2-3, and those engineering subjects included in the second and third years of the Mechanical Engineering (Chemical Engineering option) course.

DEPARTMENT OF TEXTILE ENGINEERING

Professor Camp, Associate Professor Nelson,
Instructor Heard.

The Department of Textile Engineering offers excellent opportunities to the students who intend entering the textile industry. With the superior equipment for instruction in the manufacture of all grades of cotton goods, this department is expected to bring a material increase in the wealth and prosperity of the people of the State, and help reduce the millions of dollars worth of raw materials being shipped annually to distant factories to be made into finished products.

The building occupied by this department has two stories and is sixty-six feet wide by two hundred and eighteen feet long. It is a splendid example of architectural skill, and has admirably arranged classrooms, laboratories, machinery halls, etc.

A broad education is given as a foundation for the work in textile engineering. The course includes English, mathematics, physics, chemistry, machine design, surveying, steam engines and boilers, electricity, etc., in addition to the purely textile subjects.

The purely textile work comprises lectures, calculations, testing investigation and experimenting with the various machines; practical running or operation of the machines by the students, so as to make them familiar with the use and operation of each machine and process; sketching of the most complicated parts, setting of rollers for some particular staple of cotton, setting of the builder motions, plumbing spindles, etc., and changing of counts and varieties of yarn by the students. The principles of fabric structure are studied, and also the elements of woven design. Cloth analysis is studied to ascertain the structure in order that the fabric may be reproduced.

Each student receives samples of products made, which are in a large measure standard fabrics, with all data regarding their manufacture, etc.

The weaving department is equipped with the most modern machinery for the production of almost any type of cotton fabric: and it is upon these machines that the students have practical work, and manufacture many standard fabrics. The construction details as well as the practical work of the machines and all related calculations are studied. A wide latitude is given the student in producing fabrics to illustrate different color combinations and weave effects of his own. All calculations, etc., incident to the above are made by the student.

The principle of latch needle knitting applicable to the knitting of ladies' hose, men's half-hose, and mufflers is studied.

The construction and operation of the various machines are taken up in detail.

The equipment in this department, as in all the various departments, consists of the very best and latest construction.

The work in dyeing and finishing includes both theory and practice. Laboratory work precedes the practical dyeing on the machines. In the laboratory the students take up the actions of alkalies, acids, etc., upon the different textile fibers; and the application of the various classes of dyes to silk, wool and cotton are studied. Full details of the processes employed in bleaching cotton yarn and cloth are followed; including water purification by chemical and mechanical means with special reference to bleaching and finishing.

A room is furnished as a textile laboratory, and it is equipped with the most approved apparatus for testing the products in the various stages of manufacture into yarns, cloth, etc.

SCHOOL OF ENGINEERING

Cottons, laps, slivers, rovings, yarns and fabrics are tested for determining the moisture content, the effect of different speeds, adjustments or setting, twists, temperatures and humidities, etc., on the appearance, elasticity, and strength of yarns and fabrics.

Complete systems of heating, lighting, humidifying, etc., and all apparatus, etc., found in the modernly equipped mill are installed here.

The practical work enables the student to become familiar with all details in the design, construction, and the operation of the various machines and processes. Various products are manufactured by the students under the direction of the instructors.

The work of the freshman class is the same as that for the other engineering courses.

COURSES OF INSTRUCTION

224-5-6. *Fabric Design and Manufacture*. Recitation and laboratory 2 periods per week.

Prerequisite: Sophomore standing.

331-2-3. *Yarn Manufacture*. Recitation and laboratory 3 periods per week.

Prerequisite: Junior standing.

(Formerly 227, 321-2-3).

341-2-3. *Fabric Design and Manufacture*. Recitation and laboratory 4 periods per week.

Prerequisite: Textile Engineering 226.

434-5-6. *Dyeing and Finishing*. Recitation and laboratory 3 periods per week.

Prerequisite or parallel: Chemistry 345.

(Formerly 421-2-3).

431-2-3. *Yarn Manufacture, Knitting and Testing*. Recitation and laboratory 3 periods per week.

Prerequisite: Textile Engineering 333.

441-2-3. *Fabric Design and Manufacture*. Recitation and laboratory 4 periods per week.

Prerequisite: Textile Engineering 343.

SCHOOL OF HOME ECONOMICS

MARGARET W. WEEKS, Dean

PURPOSE

The School of Home Economics of the Texas Technological College offers to young women a college curriculum in which scientific courses and practical work are closely woven with the familiar subjects of the college course; the aim being that the students who complete the course shall have the culture and broad-mindedness which is the asset of the college trained woman together with the practical knowledge and scientific training necessary to the homemaker today.

In addition to the vocation of the home-maker the School of Home Economics aims to train students for specific vocations. The four majors outlined below are planned with the idea of stressing the students' major interests. The first year is essentially the same regardless of what major the student may select.

1. *General Home Economics.* Designed to meet the needs of the student who wishes general training for the home rather than for professional use.

2. *Teacher Training in Home Economics.*

L

The School of Home Economics is now approved by the State and Federal Boards for Vocational Educational.

Graduates of the School of Home Economics, who have completed the work of the teacher training major, will receive, in addition to the B. S. degree, the Smith-Hughes Home Economics certificate. This certificate is awarded by the State Department of Education and entitles the holder to teach home economics under the Smith-Hughes plan.

3. *Foods and Nutrition.* For the student who wishes more intensive training along the lines of food and nutrition than is given in the preceding majors. A student may prepare herself by choosing suitable electives for such positions as (a) teacher of foods and nutrition; (b) dietitian; (c) luncheon room for institutional manager; (d) nutrition worker in organizations promoting health.

4. *Clothing and Design.* Intended for the student who wishes more intensive training along the lines of clothing and design. A student with this major may prepare herself for such positions as (a) teacher of clothing and applied design, (b) dress-maker; (c) milliner; (d) work in department stores, such as textile buyer or shoppers' adviser.

ADMISSION

Admission requirements to the School of Home Economics of the Texas Technological College are similar to the general admission requirements of other schools in the College.

Admission may be by any one of the three methods following:

- (a) Upon presentation of a certificate of graduation from an accredited secondary school.
- (b) Upon successful examination in the entrance subjects.
- (c) Upon individual approval.

Fifteen units are required for admission to full freshman standing, as follows:

1. English	3 units
2. Foreign Language	2 units
3. Mathematics	2 units
Plane Geometry 1	
Algebra 1	
Two from either	2 units
4. (a) History, civics, economics, sociology, or	
(b) Botany, zoology, chemistry, physics, geology, general biology, etc.	
5. From the group not chosen under (4) ..	1 unit
6. From any accredited high school subjects, not more than four of which may be vocational subjects	5 units
Total	15 units

Students who have not the units in foreign language to present for entrance will schedule two years of foreign language in order to make up the deficiency. The extra year will be used to absolve the entrance requirement. Students majoring in clothing are advised to register for French; students with a foods and nutrition major should schedule German.

Students desiring to enter by examinations may take the examinations given under the supervision of the State Department of Education in the month of May each year. Full entrance examinations will be held at the College on September 16-18.

A candidate over twenty-one years of age, who has not recently attended school, and who cannot satisfy the entrance requirements in full may be admitted to the freshman class without examination, provided she can satisfy the Dean of the School of Home Economics that she can profit by the instruction to be given in the freshman class.

The Bachelor of Science degree will be granted upon the satisfactory completion of any one of the following curricula:

REQUIRED FOR GRADUATION

<i>General Home Economics Major</i>	Credit Hours
English	18
History	9
Foreign Language	9
Chemistry	12
Biology	15
Mathematics	3
Physics	6
Government	8
Sociology	9
Education and Psychology	9
Foods and Nutrition	18
Clothing and Design	21
General Home Economics	15
Home Economics Electives	15
General Electives	18
Home Economics 121	2
Total	187

<i>Teacher Training Major</i>	Credit Hours
English	18
History or Foreign Language	9
Biology	15
Chemistry	18
Mathematics	3
Education and Psychology	21
Government	8
Sociology or Economics	9
Clothing	21
Design	9
Foods and Nutrition	27
General Home Economics	14
Electives	15
Total	187

<i>Clothing and Design Major</i>	Credit Hours
English	18
History	9
Foreign Language	9
Biology	15
Chemistry	12
Mathematics	3
Physics	6
Education and Psychology	9
American Government	8

Sociology	9
Economics	9
Foods and Nutrition	9
Home Economics Electives	15
Clothing and Design	39
General Electives	15
Home Economics 121	2
Total	187

	<i>Foods and Nutrition Major</i>	Credit Hours
English		18
History or Foreign Language		9
Biology		15
Chemistry		24
Physics		6
Mathematics		3
Education and Psychology		9
American Government		8
Sociology or Economics		9
Foods and Nutrition		36
Clothing and Design		12
General Electives		15
Home Economic Electives		18
General Home Economics		5
Total		187

Two years of Physical Education are required for graduation from any major.

Foreign language is required for the Clothing Major and for General Home Economics major, and is elective for Teaching Training major, and Foods and Nutrition major. Students who enter with two units of foreign language may schedule same foreign language in which they have high school credit or a new foreign language. In the former case they should schedule Foreign Language 231, 232, 233; in the latter they should schedule Foreign Language 131, 132, 133.

CURRICULUM FOR GENERAL HOME ECONOMICS MAJOR

	<i>Freshman Year</i>	Credit Hours
English 131a, b, c		9
Foreign Language 231, 232, 233		9
Inorganic Chemistry 141, 142, 143		12
Mathematics H131		3
Clothing 131, 132, 133, or Foods 131, 132, 133		9
Design 131		3
General Home Economics 121		2
Total		47

<i>Sophomore Year</i>	<i>Credit Hours</i>
English 231, 232, 233	9
History 131, 132, 133	9
Zoology 134, 135, 136	9
American Government 131, 132, 133	9
Foods and Nutrition 131, 132 133	9
Total	45

<i>Junior Year</i>	<i>Credit Hours</i>
Foods and Nutrition 231, 232, 233	9
Clothing 231-232	6
Home Economics 331	3
Home Economics 332	3
Education H331	3
Bacteriology 232, 233	6
Physics 341, 342	6
Design 231	3
Elective	2
Psychology 230, 232	3
Total	47

<i>Senior Year</i>	<i>Credit Hours</i>
Home Economics 461	6
Home Economics 431	3
Sociology or Economics 231, 232, 233	9
Foods and Nutrition Electives	9
Clothing and Design Electives	9
General Electives	12
Total	48

This major does not prepare for teaching any phase of home economics.

CURRICULUM FOR TEACHER TRAINING IN HOME ECONOMICS

<i>Freshman Year</i>	<i>Credit Hours</i>
English 131a, b, c	9
Chemistry 141, 142, 143	12
Mathematics H131	3
General Home Economics 121	2
Clothing 131, 132, 133, or Foods 131, 132, 133	9
Design 131	3
Elective	9
Total	47

<i>Sophomore Year</i>	Credit Hours
English 231, 232, 233	9
History 131, 132, 133 or Foreign Language	9
Zoology 134, 135, 136	9
Foods, 131, 132, 133 or Clothing 131, 132, 133	9
Psychology 230, 232	6
Education 331	3
Total	45

<i>Junior Year</i>	Credit Hours
Organic Chemistry 331, 332	6
American Government 331, 332	6
Government 220	2
Foods 231, 232, 233	9
Design 231	3
Clothing 231, 232	6
Bacteriology 231, 232	6
Home Economics 332	3
Education H331	3
Home Economics 331	3
Total	47

<i>Senior Year</i>	Credit Hours
Sociology 231, 232, 233, or Economics 231, 232, 233	9
Education H431, H432, H433	9
Clothing 331, 332	6
Design 431	3
Foods 331	3
Foods 334	3
Foods 335	3
Home Economics 461	6
Electives	6
Total	48

CURRICULUM FOR CLOTHING AND DESIGN MAJOR

<i>Freshman Year</i>	Credit Hours
English 131a, b, c,	9
Foreign Language 231, 232, 233	9
Inorganic Chemistry 141, 142, 143	12
Mathematics H131	3
Design 131	3
Clothing 131, 132, 133	9
Home Economics 121	2
Total	47

<i>Sophomore Year</i>	Credit Hours
English 231, 232, 233	9
History 131, 132, 133	9
Zoology 134, 135, 136	9
Clothing 231, 232	6
Foods and Nutrition 131, 132, 133	9
Design 231	3
Elective Home Economics	3
Total	48

<i>Junior Year</i>	Credit Hours
American Government 331, 332	6
Education 331	3
Psychology 230, 232	6
Clothing 331	3
Clothing 332	3
Clothing 333	3
Bacteriology 231, 232	6
Physics 341, 342	6
General Electives	6
Home Economics 332	3
Government 220	2
Total	47

<i>Senior Year</i>	Credit Hours
Sociology 231, 232, 233	9
Economics 231, 232, 233	9
Design 431	3
Clothing 431, 432 or 433	6
General Electives	6
Home Economic Electives	12
Total	45

CURRICULUM FOR FOODS AND NUTRITION MAJOR

<i>Freshman Year</i>	Credit Hours
English 131a, b, c	9
Foreign Language 231, 232, 233, or History 131, 132, 133	9
Inorganic Chemistry 141, 142, 143	12
Foods and Nutrition 131, 132, 133	9
Design 131	3
Mathematics H131	3
General Home Economics 121	2
Total	47

<i>Sophomore Year</i>	<i>Credit Hours</i>
English 231, 232, 233	9
Zoology 134, 135, 136	9
Clothing 131, 132, 133	9
Foods and Nutrition 231, 232, 233	9
Home Economics 332	3
Psychology 230, 232	6
Total	45

<i>Junior Year</i>	<i>Credit Hours</i>
Chemistry 331, 332	6
Physics 341, 342	6
Bacteriology 231, 232	6
Foods and Nutrition 331, 332, 333, or 331, 334, 335	9
American Government 331, 332	6
General Electives	12
Government 220	2
Total	47

<i>Senior Year</i>	<i>Credit Hours</i>
Physiological Chemistry 47, 438	6
Economics 231, 232, 233, or Sociology 231, 232, 233	9
Electives	12
Foods and Nutrition Electives	9
Home Economics Electives	12
Total	48

COURSES OF INSTRUCTION

DEPARTMENT OF CLOTHING

Professor Erwin, Instructor Walker

The Department of Clothing and Design offers instruction in the fundamental principles of clothing selection and construction; in textiles and in design. All students registered in the School of Home Economics are required to take at least nine hours in this department. Students majoring in Clothing must consult their adviser regarding advanced courses and electives. Students expecting to teach Clothing in a vocational high school should choose among their electives Education H431, H432 and H433.

131. *Elementary Course in Clothing Construction.*

Students who present a certificate from a vocational high

school, and who are able to pass a placement test satisfactory to the instructor, are exempt. Such students should elect a three-point course, preferably an additional course in history, English or a modern language.

Four hours laboratory; one lecture; per week: fee, \$1.00.

132. *Fundamental Principles of Dress Selection.*

Two hours laboratory; two lectures per week; fee, \$1.00.

133. *Elementary Textiles.*

Two hours laboratory; two lectures per week; fee, \$1.00.

231. *Elementary Dress Design.*

Prerequisite: Design 231, Clothing 131, 132, 133.

Laboratory five hours; one lecture per week; fee, \$1.00.

232. *Elementary Dress Design.*

Prerequisite: Clothing 232.

Laboratory five hours; one lecture per week; fee, \$1.00.

331. *Advanced Textiles.*

Prerequisite: Clothing 232.

Four hours laboratory; one lecture per week; fee, \$2.00.

332. *Children's Clothing.*

Prerequisite: Clothing 131, 132, 133; Design 131.

Four hours laboratory; one lecture per week; fee, \$1.00.

333. *Advanced Dress Design.*

Prerequisite: Clothing 233.

Five hours laboratory; one lecture per week; fee \$1.00.

431. *Millinery.*

Prerequisite or parallel: Clothing 233, junior or senior standing.

Five hours laboratory; one lecture per week; fee, \$1.00.

432. *Historic Costume.*

Prerequisite: Junior or senior standing.

Three lectures per week: fee, \$1.00.

433. *Tailoring.*

Prerequisite: Clothing 333.

Five hours laboratory; one lecture per week; fee, \$1.00.

DEPARTMENT OF ART

Associate Professor Delleney

The Department of Art aims to develop standards of good taste which apply directly to everyday life, as well as to develop technical skill for those students who wish to specialize in some phase of applied Art. Advanced courses will be organized and offered as the demand arises.

131. *Elementary Design.*

Laboratory 4 hours; one lecture per week; fee, 50 cents.

132, 133. *Applied Design.*

Prerequisite: Design 131.

Laboratory 6 hours per week; fee 50 cents each term.

231. *Costume Design.*

Prerequisite: Design 131.

Laboratory four hours; one lecture per week; fee, 50 cents.

431. *Household Furnishings.*

Prerequisite: Design 131.

Lecture one hour; laboratory four hours; fee, 50 cents.

432. *Advanced Household Furnishings.*

Prerequisite: Design 131, 431.

Lecture, one hour; laboratory, four hours; fee, 50, cents.

DEPARTMENT OF FOODS AND NUTRITION

Professors Weeks, McCrery, Associate Professor McFarlane,
Adjunct Professor Harper

The Department of Food and Nutrition offers instruction in the fundamental principles of foods, cookery and nutrition. All students registered in the School of Home Economics are required to schedule nine hours in this department. Students majoring in Foods and Nutrition should consult their adviser regarding the advanced courses.

Students expecting to teach foods in a vocational high school should choose among their electives Education H431, H432 and H433.

131. *Elementary Course in Foods and Cookery.*

Students who present a certificate from a vocational high school, and who satisfy the instructor that they know the work of this term are exempt. Such students should elect a three-point course, preferably an additional course in history or English or modern language.

Six hours laboratory per week; fee, \$2.00.

132. A study of food costs, production, manufacture and composition.

Two lectures; one laboratory period per week; fee, \$2.00.

133. A lecture course. No fee.

231, 232. *Meal Planning and Serving.*

Prerequisite: Foods 131, 132, 133.

One hour recitation, 6 hours laboratory; fee \$1.50 per term.

233. *Elementary Nutrition.*

Prerequisite: Foods 232.

Two hours recitation; three hours laboratory; fee, \$1.50.

331. *Luncheon Management.*

Prerequisite: Foods. 233.

One hour recitation, six hours laboratory; no fee.

332, 333. *Institutional Management.*

Prerequisite: Foods 331.

Two recitations, three hours laboratory; no fee.

334. *Demonstration Cookery.*

Prerequisite: Foods 331.

One hour recitation; four hours laboratory; fee, \$1.00.

335. *Experimental Cookery.*

Prerequisite: Foods 233.

One hour recitation; six hours laboratory; fee, \$1.50.

431. *Catering.*

Prerequisite: Foods 334.

Includes a study of more unusual and elaborate dishes. Where special functions are served extra hours are required.

Six hours laboratory; fee, \$1.50.

432. *Nutrition.*

Prerequisite: Foods 233; Registration Chemistry 437.

A more intensive course in nutrition intended for students with Foods and Nutrition major.

Two hours recitation; four hours laboratory; fee, \$2.00.

433. *Nutrition in Disease.*

Prerequisite: Foods 432.

Three hours recitation.

434. *Health Center Work.*

General nutrition problems and public health work. Intended for students who wish to prepare themselves for nutrition work with health organizations.

DEPARTMENT OF HOME ECONOMICS EDUCATION

Professors Weeks, Erwin
Instructor Johnson

Students who wish to qualify as teachers of Home Economics should schedule the following courses in Home Economics Education, and in addition should include the general education courses which are outlined for the major selected.

H331. *Child Care.*

Prerequisite: Education 230.

H431. *Problems in Home Economics Education.*

H432. *Special Methods in Home Economics.*

H433. *Practice Teaching in Home Economics.*

Prerequisite: Education H332.

The practice teaching is done in the city schools of Lubbock and Slaton under the supervision of the city teachers and the director of Home Economics teaching at the College.

GENERAL HOME ECONOMICS

The following courses known as General Home Economics Courses are offered to students with all majors in the School of Home Economics and to students registered in the School of Liberal Arts who have the prerequisites.

121. *An Orientation Course.*

Required of all students in the Freshman year.

331. *Home Nursing.*

Two lectures and two hours laboratory per week.

332. *Household Administration.*

Three hours per week; fee, 50 cents.

431. *Family Relationships.*

Prerequisite: Senior standing.

461. *Practice House.*

Prerequisite: Household Administration 332; 18 hours of Foods.

Required of all candidates for a Smith-Hughes Certificate.

SPECIAL COURSES FOR HOME-MAKERS

In order to meet the needs of the women of Lubbock and the surrounding country Special Courses for home-makers have been included at the School of Home Economics. These courses require no prerequisite and carry no college credit. It is recommended that students register for the regular college work whenever possible.

CLOTHING DEPARTMENT

101 and 102. *Garment Construction.*

Non credit course for home-makers. Offered in winter and spring terms. Lecture and laboratory 3 hours per week. Special fee, \$2.50.

FOODS DEPARTMENT

101 and 102. *Meal Planning, Preparation, and Service.*

Non-credit course for home-makers. Offered in fall and winter terms. Lecture and laboratory 3 hours per week. Special fee, \$4.00 per term.

NUMBERS IN ARTISTS' COURSE

1927-28

Russian Cossack Chorus.....	November 6
Captain Noel, Ascent of Mount Everest.....	November 28
Frederick Warde, "Fifty Years of Make Believe".....	December 15
May Peterson, Soprano.....	January 9
Coffer-Miller Players.....	February 27-28
John Erskine, "Helen of Troy".....	March 23

FOOTBALL SCHEDULE

1928

Sept. 29—Schreiner Institute of Kerrville at Lubbock.
Oct. 6—Texas University of Austin at Austin.
Oct. 13—St. Edwards University of Austin at Lubbock
Oct. 20—McMurry College of Abilene at Lubbock
Oct. 27—T. C. U. of Fort Worth at Fort Worth.
Nov. 3—D. B. C. of Brownwood at Brownwood.
Nov. 10—Abilene Christian College of Abilene at Lubbock.
Nov. 17—Simmons University of Abilene at Lubbock.
Nov. 29—W. T. S. T. C. of Canyon at Canyon.

REPORT ON REGISTRATION FOR SUMMER SCHOOL

1928

ENROLLMENT BY SCHOOLS

School of Agriculture.....	42
School of Home Economics.....	101
School of Engineering.....	44
School of Liberal Arts.....	762
Cotton School.....	16
Total.....	965

ENROLLMENT BY SEXES

Women Students.....	619
Men students.....	346
Total.....	965

TOTAL ENROLLMENT

Total enrollment for the long session 1927-28.....	1,682
Students enrolled in Summer School who were not enrolled during the long session.....	532
Grand total for the year.....	2,214

RELIGIOUS AFFILIATION OF STUDENTS OF TEXAS TECHNOLOGICAL
COLLEGE, 1927-28.

Including New Students for Summer Session

Assembly of God	1
Baptist	699
Catholic	8
Christian	180
Christian Science	3
Church of Christ	135
Church of the Brethren	1
Congregational	1
Cumberland Presbyterian	11
Episcopal	27
I. B. S. A.	2
Jewish	1
L. D. S.	1
Lutheran	8
Methodist	792
Nazarene	3
Presbyterian	143
Primitive Baptist	2
Unitarian	1
No Preference	195
Total	2,214

TEXAS TECHNOLOGICAL COLLEGE

ENROLLMENT OF STUDENTS BY COUNTIES, 1927-28

Anderson	4	El Paso	4
Archer	6	Erath	11
Armstrong	5	Falls	5
Bailey	5	Fannin	12
Bastrop	1	Fisher	10
Baylor	8	Floyd	29
Bell	7	Foard	5
Bexar	8	Freestone	9
Bosque	9	Gaines	11
Bowie	2	Galveston	3
Brewster	3	Garza	12
Briscoe	7	Gonzales	3
Brown	9	Gray	10
Burleson	1	Grayson	11
Burnet	3	Hale	61
Callahan	5	Hall	18
Cameron	2	Hamilton	8
Carson	9	Hansford	2
Cass	1	Hardeman	22
Castro	3	Harris	1
Childress	5	Harrison	3
Clay	11	Hartley	1
Coke	2	Haskell	18
Coleman	18	Hemphill	2
Collin	10	Henderson	15
Collingsworth	18	Hidalgo	7
Comanche	10	Hill	10
Concho	4	Hockley	27
Cooke	5	Hood	2
Coryell	8	Hopkins	2
Cottle	9	Houston	1
Crane	1	Howard	5
Crosby	55	Hunt	3
Dallam	7	Hutchinson	4
Dallas	20	Jack	4
Dawson	28	Jeff Davis	2
Deaf Smith	6	Jefferson	2
Delta	4	Johnson	9
Denton	2	Jones	15
DeWitt	3	Karnes	1
Dickens	28	Kaufman	2
Donley	9	Kent	2
Eastland	23	Knox	17
Edwards	1	Lamar	5
Ellis	9	Lamb	39

STUDENTS ENROLLED FROM STATES OTHER THAN TEXAS 131

Lampasas -----	6	Roberts -----	6
Lavaca -----	3	Runnels -----	10
Lee -----	1	San Patricio -----	2
Limestone -----	6	San Saba -----	3
Llano -----	1	Scurry -----	21
Lubbock -----	817	Shackelford -----	6
Lynn -----	30	Shelby -----	1
Martin -----	4	Sherman -----	5
Mason -----	1	Smith -----	1
Matagorda -----	2	Stephens -----	4
McCulloch -----	5	Stonewall -----	1
McLennan -----	12	Swisher -----	23
Menard -----	1	Tarrant -----	12
Midland -----	4	Taylor -----	11
Milam -----	9	Terrell -----	6
Mills -----	1	Terry -----	30
Mitchell -----	16	Throckmorton -----	1
Montague -----	14	Tom Green -----	1
Moore -----	7	Travis -----	2
Motley -----	17	Tyler -----	5
Nacogdoches -----	2	Upshur -----	1
Navarro -----	6	Upton -----	1
Nolan -----	9	Uvalde -----	3
Nueces -----	3	Van Zandt -----	2
Ochiltree -----	1	Webb -----	1
Oldham -----	1	Wheeler -----	4
Palo Pinto -----	19	Wichita -----	3
Panola -----	1	Wilbarger -----	23
Parmer -----	4	Willacy -----	2
Parker -----	4	Williamson -----	12
Pecos -----	4	Wilson -----	2
Potter -----	31	Wise -----	6
Randal -----	1	Wood -----	10
Red River -----	1	Yoakum -----	3
Reeves -----	7	Young -----	10

STUDENTS ENROLLED FROM STATES, OTHER THAN TEXAS

Alabama -----	1	Missouri -----	4
Arizona -----	2	New Mexico -----	46
Arkansas -----	4	North Carolina -----	1
Indiana -----	2	Ohio -----	1
Iowa -----	1	Oklahoma -----	23
Kansas -----	1	South Carolina -----	1
Louisiana -----	1	Tennessee -----	1
Minnesota -----	1		

O COLLEGE MOTHER, BEAUTIFUL

(College Hymn of Texas Technological College sung to the music
of "America the Beautiful.")

1

O College Mother, Beautiful,
Our hearts go out to thee.
We raise our voices in a prayer
For thy prosperity.
O College Mother, Beautiful,
Long be thy life and blest.
May God crown all thy nights and days
With love and joy and rest!

2

O College Mother, Beautiful,
Thy skies of vaulted blue
Call to thy sons and daughters all
Forever to be true.
True to the State they love so well,
The land that gave them birth;
True to their glorious heritage,
The fairest land on earth!

3

O College Mother, Beautiful,
Thy arches and thy towers
Thy halls and roofs and corridors
Forevermore are ours.
We love thy fields of cotton white,
Thy grasses and thy grains,
Thy canyons and thy terraces,
Thy fertile upland plains.

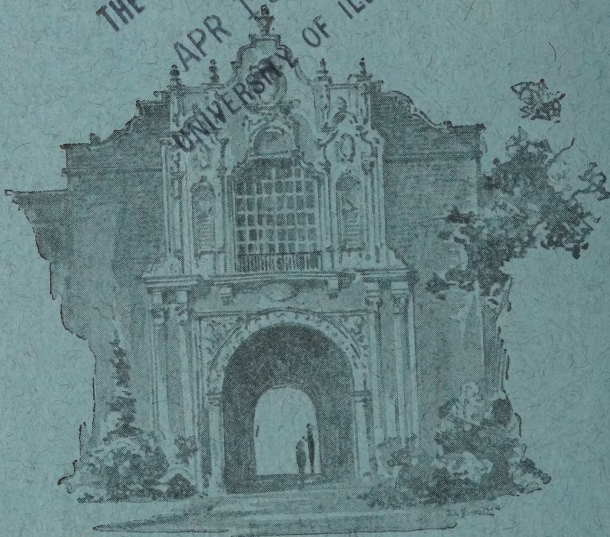
4

O College Mother, Beautiful,
We love thy words of truth,
Deep graven in thy brick and stone
To guide the ways of youth.
Long may thy fingers point the way
That earnest youth should tread,
And may the blessings of the free
Be ever on thy head.



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